

ADOLF ROSENAUER: NEVADA NEUROSURGEON

Interviewee: Adolf Rosenauer

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Description

This oral history reviews a remarkable life, from childhood in the shaky time between World War I and World War II, adolescence with the Hitler era underway, and young manhood in the German Wehrmacht, including a stint in Russia. By virtue of an uncanny survival instinct, Adolf Rosenauer got through those experiences then finished medical school in Austria and his residency training on both sides of the water. He came to Reno in the late 1950s to start his medical practice. Dr. Rosenauer has served his community and his patients in a most exemplary fashion, and this oral history presents a unique opportunity to become acquainted with a fascinating man.

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NEVADA NEUROSURGEON

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An Oral History Conducted by Roderick Sage

University of Nevada Oral History Program

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PREFACE TO THE DIGITAL EDITION

Established in 1964, the University of Nevada Oral History Program (UNOHP) explores the remembered past through rigorous oral history interviewing, creating a record for present and future researchers. The program's collection of primary source oral histories is an important body of information about significant events, people, places, and activities in twentieth and twenty-first century Nevada and the West.

The UNOHP wishes to make the information in its oral histories accessible to a broad range of patrons. To achieve this goal, its transcripts must speak with an intelligible voice. However, no type font contains symbols for physical gestures and vocal modulations which are integral parts of verbal communication. When human speech is represented in print, stripped of these signals, the result can be a morass of seemingly tangled syntax and incomplete sentences—totally verbatim transcripts sometimes verge on incoherence. Therefore, this transcript has been lightly edited.

While taking great pains not to alter meaning in any way, the editor may have removed false starts, redundancies, and the “uhs,” “ahs,” and other noises with which speech is often liberally sprinkled; compressed some passages which, in unaltered form, misrepresent the chronicler's meaning; and relocated some material to place information in its intended context. Laughter is represented with [laughter] at the end of a sentence in which it occurs, and ellipses are used to indicate that a statement has been interrupted or is incomplete...or that there is a pause for dramatic effect.

As with all of our oral histories, while we can vouch for the authenticity of the interviews in the UNOHP collection, we advise readers to keep in mind that these are remembered pasts, and we do not claim that the recollections are entirely free of error. We can state, however, that the transcripts accurately reflect the oral history recordings on which they were based. Accordingly, each transcript should be approached with the

same prudence that the intelligent reader exercises when consulting government records, newspaper accounts, diaries, and other sources of historical information. All statements made here constitute the remembrance or opinions of the individuals who were interviewed, and not the opinions of the UNOHP.

In order to standardize the design of all UNOHP transcripts for the online database, most have been reformatted, a process that was completed in 2012. This document may therefore differ in appearance and pagination from earlier printed versions. Rather than compile entirely new indexes for each volume, the UNOHP has made each transcript fully searchable electronically. If a previous version of this volume existed, its original index has been appended to this document for reference only. A link to the entire catalog can be found online at <http://oralhistory.unr.edu/>.

For more information on the UNOHP or any of its publications, please contact the University of Nevada Oral History Program at Mail Stop 0324, University of Nevada, Reno, NV, 89557-0324 or by calling 775/784-6932.

Alicia Barber
Director, UNOHP
July 2012

ORIGINAL PREFACE

Since 1965 the University of Nevada Oral History Program (UNOHP) has been collecting an eye-witness account of Nevada's remembered past. While there is no standard chronicler profile nor rigid approach to interviewing, each oral history plumbs human memory to gain a better understanding of the past. Following the precedent established by Allan Nevins at Columbia University in 1948 (and perpetuated since by academic programs such as ours throughout the English-speaking world) these manuscripts are called oral histories. Some confusion surrounds the meaning of the term. To the extent that these "oral" histories can be read, they are not oral, and while they are useful historical sources, they are not themselves history. Still, custom is a powerful force; historical and cultural records that originate in tape-recorded interviews are almost uniformly labeled "oral histories," and our program follows that usage.

Oral histories conducted by UNOHP are meant to serve the function of primary source documents, as valuable in the process of historiography as the written records

with which historians customarily work. However, while the properly conducted oral history is a reliable source, verifying the accuracy of all of the statements made in the course of an interview would require more time and money than the UNOHP's operating budget permits. The program can vouch that the statements were made by Adolf Rosenauer, and that he has approved the edited manuscript, but it does not assert that all statements are entirely free of error. As with all such efforts, the work should be approached with the same caution that the prudent reader exercises when consulting government records, newspaper accounts, diaries, and other sources of historical information.

Each finished manuscript is the product of a collaboration—its structure influenced by the directed questioning of an informed, well-prepared interviewer, and its articulation refined through editing. While the words in this published oral history are essentially those of Adolf Rosenauer in his interview with Roderick Sage, the text is not a *verbatim*

transcription of the interview as it occurred. In producing a manuscript, it is the practice of the UNOHP to employ the language of the chronicler, but to edit for clarity and readability. By shifting text when necessary, by polishing syntax, and by deleting or subsuming the questions of the interviewer, a first-person narrative with chronological and topical order is created.

The tape recordings from which this manuscript is derived are in the archives of the University of Nevada Oral History Program where they can be heard by appointment.

UNOHP
June 2000

INTRODUCTION

Dr. Adolf Rosenauer and I have been close friends for over forty years. We both arrived in Reno to start our medical practices in the late 1950s and found each other to be of kindred spirit. We, and our families, have shared many outings, including duck hunts, Tahoe sailing expeditions, and kayaking on the Truckee River, plus longer vacations on the Oregon coast. We have even attended a few football games, which Adolf refers to as “gladiator contests,” and the cheerleader activities as “hopping girl contests.”

A conversation on almost any subject opens the door to a high-level discussion, which we refer to as the “Adolfian Lecture Series.” For example, his knowledge of European history is encyclopedic. Facts, figures, sometimes fancy, plus a liberal helping of fun and wry philosophy are the result. The Maria Theresa ring, awarded to him many years ago for a perfect record during his entire academic career, attests to his phenomenal intellect.

This oral history reviews a most remarkable life, from childhood in the shaky

time between World War I and World War II, adolescence with the Hitler era under way, and young manhood in the German *Wehrmacht*, including a stint in Russia. By virtue of an uncanny survival instinct, Adolf got through that mess, then finished medical school in Austria, and his residency training on both sides of the water. He came to Reno then, where he has served his community and patients in a most exemplary fashion. What an opportunity we have here to become better acquainted with this unique and fascinating man.

Roderick D. Sage
May 2000



ADOLF ROSENAUER
1999

FAMILY HERITAGE AND EARLY YEARS

ANCESTRY

I was born September 20, 1922 in Linz, Austria, which is on the Danube River about 150 miles upstream from Vienna, and is about twenty miles south of the border of the present day Czech Republic, the border having been established after World War I as part of the Treaty of Versailles a couple of years prior to me arriving in this world. This was four years after the cessation of the Hapsburg monarchy. [Editor's note: Austrian spelling is *Habsburg*] I was born in a relatively old house that has been on record since about ten years before the Pilgrims started their voyage to the Western Hemisphere.

My mother comes from a family of vintners in that part of Tyrol that in 1918 was made part of Italy. My mother's maiden name was Fiorioli, from Friuli. There is a province in northern Italy, which is called Friuli. The name comes from *fuorilulia*, which means "outside the province of Iulia," which was established by Julius Caesar and took its name from that. *Fuori* is the Italian word for

"outside." So this was outside the province of Rome. Fioriolis have been in that same place since about when Columbus sailed, so they were very stationary. Beyond that, tracing my family becomes legend. I have the correspondence with a lawyer in Bologna who is also a Fiorioli, and he has sporadic and discontinuous pieces of interest, which go back to about the time of the ruler called Karl the Great, Charlemagne. Some house signs or emblems cut into the keystones over the entrances indicate that the Fiorioli came from Friuli, and that's why they named them that way. Now, again, this goes into almost legend.

My father's family can be traced fairly accurately to a little beyond that of George Washington's. My father inherited a grocery store from his father, who had taken that store from my great-grandfather, Johann Rosenauer, who had come from a little village upstream of the Danube close to what's now the Bavarian Border. It's northwest of Linz.

Most of the Rosenauers lived in what's now the Czech Republic. We think they were either annihilated or certainly ethnically

cleansed in 1945. We think that the early Rosenauers were settlers who came from the archbishopric of Passau, which has been there since Roman times. The settlers moved into the Bohemian forest, or what was at one time the Bohemian forest area, and along the Danube through several villages with the name of Rosenauer that I know of, as far east as Transylvania—where the Count Dracula comes from. *Rosenauer* means a glen, a wet area where wild roses grow. Those are, of course, very numerous in Europe.

This was all part of the Austria-Hungarian empire from early Christian and Holy Roman Empire times. Now, the settlers that left from around the monastery of Passau must have come from earlier years. The monasteries that Passau created along the Danube, and in what later on became Bohemia, didn't have continuous records before about the eleventh century.

Passau is where the Inn River that comes from Switzerland, and the Danube River which comes from northern Bavaria, and the Ilz River run together. The name is really after a Roman settlement with the name of Batava. Out of that Batava eventually came the word Passau. Passau is a very interesting town, with the largest Roman—or we would say Romanesque style—church in existence. It is on the border between Austria and Bavaria, right now.

There are other Rosenauers, too, in Linz, with some of whom there are connections, but most of them not. The house where I was born and grew up was built so on the highway from Linz to Prague. The word *Linz*, of which there are different towns and settlements in the Germanic areas, is Celtic or pre-Celtic, and it always refers to a place where a river can be crossed or forded. On the route along which trade occurred north-south from the Baltic into the Roman Empire, one of the crossings

of the Danube was in Linz, and hence, the name. So *Linz* means something like crossing. The Romans called it *Lentia*, but they already took the name from previous settlers. The trail can be traced by pieces of amber that were brought down from the Baltic. This was sort of like when the pyramids were built in Egypt.

Now, the old Rosenauer house where I grew up was built into this highway, so that when, about 200 years ago, a horse-drawn railroad was built to ferry salt from the Alps into the city of Budweis in Bohemia—Bohemia has no salt—they could load and unload salt bags from the grocery store onto the flat cars, that were then drawn by horses. I remember this ramp that jutted out into the street, the full width of the sidewalk. It had steps on one side; then there was this granite slab, the dimensions of a table, and steps down on the other side. This was the location for all the boys of the neighborhood to run up-down, up-down, up-down, up-down. The house has been torn down now, and the first thing that went down was this ramp, because the pedestrians had to walk out into the street to get around it. I still remember in that house the room where the salt bags were stored, because it glittered with salt crystals on the wall, and you could take your finger and rub the wall and it tasted salty—from hundreds of years of salt storage and trading.

My father was born in 1896. Five years he was in the Hapsburg army in the First World War, and another five years in the German army in the Second World War. Between the wars he worked in the store, and he made it so that the store stayed alive and produced enough excess to maintain certain payments to the siblings, who were entitled to a part of the inheritance from my grandfather.

In my father's family there were six siblings altogether, four males, two females. To adulthood came the two females, although

one died in young adulthood. Three of the males came to mature years. One of them also died as a young adult. Uncle Fritz, my father's younger brother, became a surgeon and lived and worked for fifteen years in Cairo, Egypt. In 1939, he came to Europe on vacation, and that vacation never ended. He could not go home, could not go back anymore.

In 1918 Uncle Fritz was in the Austrian army boot camp—he told me at one time—and didn't get any farther, because the First World War ended. In the Second World War he spent quite some time in Africa with the Afrika Corps, and then he was on the Eastern Front in Russia.

My father, in the First World War, was in Russia and then in Italy. In the Second World War he was in Poland, and then he was in Russia, and then along the Baltic. He was a captain in the Second World War. He was in the military police. Then, for a year he was a POW somewhere in or near the German-Danish border. He was a POW, but not with the Russians. Probably with the Russians, the best thing that could have happened to him is that he would have been shot immediately. However, he was first a U.S. prisoner and then handed over to a Canadian unit from there on. A year later, he was discharged.

My father ran the grocery store from 1924 until in the 1960s, and then he closed it. The grocery store at that time was economically dead. It was a mom-and-pop's operation, and four or five employees, for whom, really, there was no way of advancement, because the store was so small. I only worked there for a very limited time.

I did have one brother, Bruno, who did not survive the Second World War. He was killed in 1945 in the attempts of the German army to break the Russian siege of Berlin at the very end of the war. He was four years younger than I was. The design was for my

brother to take the store, and not only the store, but stay in the grocery business. At that time Linz had 100,000 inhabitants, and it has now about 250,000.

SCHOOLING

My earliest memories refer to grade school. I started grade school a year earlier than most other boys. Since the time of Empress Maria Theresa, a contemporary of George Washington, obligatory grade school has existed in the Hapsburg realm, and that starts at age six, but the grade school situation was at that time excessively primitive. For instance, the school was heated in winter, but not all homes were. There was just no way of purchasing fuel, so some of the children came at seven in the morning, just to stay warm. The regular school children came at eight and were there until eleven o'clock, and then in the afternoon from two to four. If you qualified as "poor," then you were fed a bowl of soup in the school. All the others that were in the grade school went home for lunch. The grade school was about ten minutes walk from the house. Later on, when I was in what we would call grammar school, then everybody brought some lunch, because it was too far to walk. It took about half an hour to walk to school.

The school system was different then, and still is in Austria. At that time school was about eleven months a year. They have a grade school, four years obligatory. Then, they have a "high school," four years, also obligatory. Parallel to that is a school called middle school (comparable to a grammar school), which you can enter after completing grade school, if you pass a test, an entrance exam. That school would be eight years, so that they take junior college and add it to the high school curriculum. What we call senior college, that you do at a university.

So four in grade school and then eight years in grammar school, so if you start at six, you are in school twelve years. So if you are a bright person or a right match, you can finish, and you expect to leave this grammar school at eighteen.

The schools were segregated. There were some similar schools for girls. There was very little of social clubs or sports teams, because sports were part of the school curriculum, like once a week or maybe twice a week, what we would call athletics and physical exercise, but the rest of the time, you had to do it at home if you wanted to, or outside of school hours, because the curriculum was fairly diversified and demanding. If you missed out, you just missed out. I did not receive any physical punishment at school. I got my whacks from my father, but never for anything related to school or learning.

PASTIMES

My father and the whole family, almost every Sunday, went hiking. Of course, if I say we went hiking, it was from ten in the morning until four or five in the afternoon, when we got home. The area around Linz is hilly, like maybe New England or Kentucky, and does not have glaciers or excessively high, snowy mountain peaks, although there are some. The real Alps are about fifty miles away. They are south of Linz, but to travel there was a once-a-year possibility. We did not have a car; we just used public transportation—train or bus.

I could ski. Well, skiing came from my father buying me a pair of skis, and my uncle making me a pair of poles. Of course, at that time, I had summer shoes and winter shoes. Winter shoes were high above the ankle, and that's what you skied with. I only skied downhill, because uphill you have to walk. It

doesn't count. I remember—I think it was the year I started grade school and maybe a year before—behind the house there was a little slope, and we climbed up and we swooped down, climbed up and swooped down there all day. It was soft, and came some boys, and they could turn. If there was a tree, they could go up a tree. In the later years, I remember when we could go up a mountain that was, gosh, I think about a hundred feet high. There were guys who were real skiers. They really made turns.

In the summer we did some boating, because my father and his brothers had listened to Fridtjof Nansen, the north polar explorer. He was a very important person traveling around Europe and giving talks about his north polar expedition. Nansen had a kayak, and he came with a wood kayak and with the design, so they built kayaks. I still remember the ones that my father and his brothers built—two or three of them.

I built kayaks when I was in this country—in the United States—but at that time, I just took those kayaks down and paddled them in the local rivers, like the Danube. That was the boating activity, which was on Sundays and was fairly enjoyable.

The skiing was, and still is, an interesting aspect in Austria, because it was a major portion, even then, of the tourist trade, without which, Austria could not exist, just like Vegas couldn't exist without the tourist trade. The skiers, no matter how primitive or inexperienced, were there mainly in Tyrol, in the Alps. At that time, it was mostly limited to those guys who went skiing instead of going to school. Then, what gave it the big swing up was alpinism, the winter touring, which became very popular, and out of that sentiment, out of that stream of activity, then came the idea of building cable cars, which was another step forward. The cable cars were

so expensive that you could afford one ride a week, only one way, but it gave you access to mountains beyond. Again, it was just a furtherance to alpinism. What we do today is a far cry from what they did then. It did help develop the western parts, the mountainous parts of Austria, and as such, was a major push, and a major development towards a better economy of the country. Also, it served as a conservative counterweight to the industrial cities with their industrial population and their tendency towards communism. So, my skiing at that time, before the war, was still very limited, but once in awhile, we were taken up a cable.

During those years I hiked a lot and became quite familiar with what's now Czechoslovakia. Linz is about twenty miles south of that border, but the city of Budweis (now Ceske Budejovice), where the Budweiser beer comes from . . . the name was ethnically more Czech than German. The next city, fifteen miles farther south at that time was largely, ethnically German, and so was the entire western rim of what was then Czechoslovakia. So, in this Bohemian forest, this was just the neighbor country, neighbor land, and you could talk to people, because the Czech language is so difficult that very few people learned it.

I had a few family connections up in the hills there. I'm currently in correspondence with a good lady, Blasta Fortuchnikua in Budweis, who is a Rosenauer. She just is a married Czech, but she writes German pretty well. I've never seen her. She is interested in genealogy. We think that the Rosenauers that came downstream on the Danube and those that came downstream on the Moldau River came from one of these monasteries along the Danube in what's now Austria, that we were talking about earlier, but we haven't found the records of a person that would link it

all together. Those monasteries are about a thousand years old. I visited many of them.

Twice I bicycled from Linz to Venice. It's about four or five hundred miles each way. One time I hiked from Innsbruck to Lake Garda, to the *Lago di Garda*. That's on the Italian side already, where it takes about two weeks hike each way, over the mountains.

I visited my mother's relatives, the Fioriolis. Those vintners had either died out or left in the earlier part of the century, and by 1920 there was nobody left any more. It had to do with the fact that there were several generations of only female offspring, so the name disappears, and also the individuals move away. So then, in and around the city of Bozen, where they had the vineyards, the city expanded, and there are no more vineyards. Bozen is now in Italy, but it was at that time in Austrian Tyrol.

When I go to Europe now, I visit that side, not because I have relatives there, but because I have friends there, of whom some are still around. As expected, they all were vintners—all of them. All had good vineyards. This country never exploited tourism, and tourism is not great today.

For the ethnic German, the Tyrol part doesn't go that far. The Italian element has built up into the mountains. For instance, that part where a U.S. Marine captain knocked down a cable car, the ethnic border is only miles away. The mountains on this side of the valley are German, and that side of the valley are Italian. [Editor's note: February 3, 1998, a U.S. Marine jet, flying at high speed and low altitude, snapped the lines of a ski cable car on Mount Cermis in the Dolomite Mountains in Cavalese, Italy, causing the gondola to tumble to the ground, killing all twenty people on board. In a military trial the pilot, Captain Richard Ashby, was found not-guilty of manslaughter, but sentenced to six months

in the brig for destroying a videotape taken during the flight. Navigator, Captain Joseph Schweitzer was dismissed from the Marines for his part in destroying the videotape. The incident strained relations between Italy and the U.S. forces stationed there. Under NATO accords, the twenty victims' families received \$1.9 million apiece—75 percent awarded by the U.S. government and 25 percent by the Italian government.]

This grade school I finished when I was ten, and the next one, the grammar school, when I finished I wasn't even eighteen, because at that time the war had broken out, and the exams that we were supposed to take in the second part of 1940 were held in the first part of 1940. I was seventeen.

POLITICAL AND ECONOMIC CLIMATE OF AUSTRIA

AUSTRIA AFTER TREATY OF VERSAILLES

At that point, I was in my teens, so there still was a lot of input from adults, but the political scene at that time was largely determined and influenced by basic economics. We could consider ourselves, probably, a middle-class family. For instance, even when I was in grade school, I came to school with shoes on all year round, and not all did—not because of habit, but because there just weren't enough shoes for all children. The summer they went without shoes.

So the economics were fairly restricted, and remained restricted, and later on I found out details why. Nowadays, we would shake our head and know why. All that situation—the political climate in Austria—goes back to the Treaty of Versailles. This Austria was an economic monster. It didn't need much more than a high school education to say that it was an economic monster. It had six to seven million inhabitants, and every third human lived in Vienna, with no place to go, which is just like a situation where we would cram

seventy million Americans into Washington D.C. with no place to go. Everybody would say, "Now who thought a thing like that up?"

Well, it was the three big shots: the President of France, Georges Clemenceau; the Prime Minister of Britain, Lloyd George; and President Woodrow Wilson of the United States, who came and didn't know diddly squat about geography or the history of Europe. It is related that at one time President Wilson was bending over the new map of Europe and pointed his finger somewhere and said, "What's that?"

Whereupon, the French Prime Minister said to him, "*Voila, c'est l'Autriche*. Here, this is Austria." Wilson didn't even know it!

One third of the country is arable, and at that time it was only the farmer who always had soup on the table. It was not a good soup, but they had soup on the table. They couldn't have many other conveniences, like shoes in summer, but at least they could eat. In the cities, and particularly in Vienna, this was rather sad. That's why Austria, as well as neighboring Germany, had several Marxist-

Bolshevist uprisings—and I’m not talking about dissidents. There were several attempts made in Austria to create a soviet republic out of it. The first one was 1919 or 1920 in Vienna, and it came that close to a success. The second time was ten years later, where I still remember the civilian men standing outside in the street, and with rifles. In front of our house was a machine gun. Some of these rebellions, like the one in 1927, eventually were put down with artillery by the Austrian government, who had difficulties recruiting troops that would shoot.

Not everywhere, but in industrial cities the political climate was overwhelmingly sympathetic to communism. In Germany, it was equally bad. There was an attempt to make a soviet republic of Hamburg—also a shooting war. There was an attempt to make a soviet republic of Munich—also a shooting war, and there was one to make a soviet republic of Thuringer, which is a province in central Germany—also a shooting war. Here, whether we want to hear it or not, the organizers, the speakers, the agitators, were invariably Jewish. This is when anti-Semitism rose from a level that was no more than it is in the United States of America now, all the way to militancy.

The constitution of the Hapsburg monarchy had to undergo profound changes with the Versailles Treaty, and the Crown Prince, Archduke Franz Ferdinand (who was shot in Sarajevo by a Serbian nationalist, Gavrilo Princip) would be now a terrorist, probably, or patriot, or saint, whatever it is. Franz Ferdinand had in mind a situation which he called the United States of Greater Austria, and I have seen a map printed at that time, so it was already in development. It is quite possible that this is why he was assassinated. He was progressive and promised changes.

The archduke’s assassination is what started the First World War. After the

war the empires had to go—the one in Russia, the one in Austria, and the one in Germany. (Britain remained an empire.) So Austria had to have a constitution, and the first numbered paragraph of the Austrian constitution read: “The newly formed Republic of Austria is part of the German Republic.” So, this thing was immediately annulled by the big shots in Versailles, although it had been based upon a plebiscite, which President Wilson had said, “Right of self-determination of all people.” That produced the expectations with which Wilson was received and the disenchantment that followed, because he didn’t go by his preaching. Then, there was another plebiscite in Austria in Tyrol, which is the western province, also to be part of the German Republic. This was also annulled.

So actually, as time went on, this State of Austria lived on loans. The president, with his hat in hand, traveled all around the world to find somebody to pay the debts, particularly after the currency was changed in the early 1920s. I still remember postage stamps on letters that said 25,000 krone (crowns). A pre-World War I crown would buy two dinners.

So we can imagine what a sellout occurred at that time. The dollar had an extra two zeros on it. And in Germany this was more pronounced. Figures were higher. Germany was in economic chaos, and Austria remained in a status of something like that. The Chancellor of Austria, Engelbert Dollfuss, sent the Parliament home because he couldn’t pay them. Dollfuss ruled with a committee of about a dozen experts in the field. He enlarged this cabinet and governed with it.

The turmoil came in 1938 and culminated in the so-called *Anschluss*, with Germany and Austria uniting on the grounds of “one nation indivisible.” I really remember Hitler standing on the balcony of the city hall in Linz

and announcing this historical step. If it were now, people would be saying, “How come? How come?” But then, no. They just followed through with what the people wanted in 1920, 1919. People accepted this *Anschluss* pretty much unanimously, because the Austria which was created in 1918 by the enemies of the Hapsburg monarchy was about as viable as Las Vegas would be without the tourist trade.

Hitler conducted a plebiscite in Austria, which was open and fairly fair. Nobody was excluded from voting in this plebiscite, and the turnout was over ninety percent. People voted for this unification for mostly economic reasons. One of them, for instance, was the Archbishop of Vienna, who with great ceremony went to the polls and voted for the unification. So actually, you could say it is always played up as a vote for Hitler. It was a vote towards economic betterment. I remember I was on the city square in Linz. This place was packed like the football stadium, when Hitler came out on the balcony of the city hall and said that, “Now, I proclaim the unification,” after the words, “one nation indivisible.”

So that’s our pledge of allegiance. What’s so odd about it? As a matter of fact, the economic development in Austria blossomed enormously. Before this *Anschluss* every tenth wage earner in Austria was unemployed, and a family only had one wage earner. That was it. This did not cover all the people who were unemployed, because the country, the coffers, would pay unemployment for six months only, and then you were out—free to go. There were able-bodied people like you see now in the Gospel Mission, and they were singing songs with their hat in their hand in the street—hobos, who were reduced to that only by economics.

This was in the 1930s, about the same time as the Great Depression in the United States, but one of the chief differences is that

in the Depression here in the U.S. people lost their fortunes, lost everything they had in the bank. In Austria it was different, because nobody had anything in the bank. They lost their dinner.

Just before the war started, my father and I had some philosophical discussions about the impending war and what it might mean. Most of the considerations were for a greater part patriotic, and for a smaller part economic. The patriotic part evolved always around the point of the promise of one nation indivisible—and much more than just Germany and Austria. That gets us right to the second part, which concerns the Hapsburg monarchy, which was ethnically a small majority German. There lived about seven million ethnic Germans in what’s now Austria, in Czechoslovakia approximately two and a half million, in Yugoslavia not quite a million, in Slovakia, which was part Hungarian, maybe half a million. These are Germans that had migrated to these places during the course of the white man migrating to the Western Hemisphere. In 1919 they all clung, to a certain degree, to President Woodrow Wilson’s promise, which was not fulfilled, that is, the doctrine of the right of self-determination for every population. The ethnic Germans in the Czech Republic now—what was Czechoslovakia then—appealed to Washington several times in the 1920s and 1930s to help them put through this promise made by President Wilson. In Yugoslavia, to my knowledge, there were no such semi-diplomatic steps, and neither from Hungary. This led us, then, to the economic considerations discussed between my father and me, because the state of Austria, as created in 1918, was not viable. As I said, it was just as bad as Las Vegas would be without the tourist trade, or if one third of the U.S. population, seventy million people, had to live in Washington D.C. The country

only has one third arable land, and at that time had very little industry. It simply couldn't get off the ground, while Germany was already building a freeway system. It was about three years or four years ahead of the Pennsylvania turnpike. The state of Austria could afford bicycle paths from populated suburbs into the cities. So, this was about the dimension.

The Hapsburg monarchy itself had done well, that is, a unity of the lands along the Danube was economically a winner, and even Bismarck said, at one time, if it didn't exist already, we would have to create it. [Prince Otto Furst von Bismarck-Schonhausen, Chancellor of Prussia, 1862-1890, "The Iron Chancellor"] Now, in 1918, with the destruction of this system, and the interruptions of as many communications as possible between the succeeding states, the economy was rock bottom.

All along the Danube people were economically in trouble, but not nearly to the point of Austria, because the new states along the Danube, such as Hungary and Yugoslavia, were much more agrarian, and their share of arable land was considerably higher than just one third. So, these two viewpoints were mentioned every so often in our discussions.

* * * * *

I grew up going to the Catholic Church every Sunday. I'm quite sure that part of the reason for this religious requirement was the fact that, particularly in Vienna, amongst the communists and anarchists, there were people who proclaimed themselves atheists. Now, they didn't have to go to the church, but they had to say, "I am an atheist." They also had to sign, "We are atheists." Then, you don't have to go to the church. It was just another aspect of Communism, Bolshevism. You know, after that people were relatively determined that

your only salvation was in the dictatorship of the proletariat.

HITLER'S YOUTH

Right after the First World War there were the boy scouts in Austria. And just like in America, where we have given the boy scouts a certain patriotic flare, so it was with the boy scouts there in Austria. And the groundwork was readily made for Hitler's Youth. The only thing that changed was the color of the shirt, but otherwise the troop was the same, and the troop leader was the same, and the scoutmaster, so to speak, was the same, so the formation of Hitler's Youth was, largely, just a renaming and re-uniforming of what was there as boy scouts. It had been the International Boy Scouts, but when it became Hitler's Youth the organization lost its internationality. Otherwise, it was pretty much the same—the same activity, the outdoor camping, map reading, star gazing, and merit badges—same thing. We wore the funny hat with the big brim and the crown. The ideal was the patriotism for the home. This thing came, of course, with this idea—one nation indivisible. We went from olive green to brown uniforms. We had organized meetings. There was a *Heim Abend*. *Heim* is a home . . . well, home was not your family home. *Heimer* indicates your home country, and the meaning became tainted so *Heim Abend* meant, not the family home, but the meeting place, the meeting hall. In the earlier sense there wasn't the name "meeting hall," so they went from one house to the next house, next house, next house. At every meeting somebody had to present something, whether it was a piece of craft or outside activity, or whether it was a collection of butterflies, or something like that.

When the scouts became the Hitler Youth, we began saluting the “*Heil, Hitler.*” And when I stood in the city square in Linz, and Hitler appeared, all arms went up with a “*Heil, Hitler.*” Now, as I look back, it just looked like a football game, only there wasn’t a score. It had a manifest economic goal, and the economy of Austria improved so much afterwards.

First, there were all these unemployed people, and within six months you couldn’t get a carpenter or a bricklayer—they were all busy doing something. In that same year, my father could buy an automobile, which was unprecedented. Some people actually bought a VW Beetle. This movement was started, and most people paid into it. Within a year and a half they were paid up. Then they got a Volkswagen Beetle. And the price for that was two monthly wages, for instance, two monthly wages of my uncle, who was a pharmacist. This really was a Volkswagen. It was primitive as hell, but it went. It was even more primitive than the VWs around here thirty years ago. Porsche, the designer, stuck that thing into a wind tunnel. You knew when you had a very weak engine, so he cut corners every place he could, so the thing could run and not be flung backwards.

WAR IMMINENT

My father had a strong feeling that the war was imminent for, maybe, half a year back or something like that, before 1939. One of the almost senseless inequities that the treaty of Versailles created was obvious. For instance, one of the points of dissent between Germany and Poland was the so-called Polish corridor. Poland had been accorded a corridor of land through Germany to the Baltic Sea. It is as if China would come and declare, “There must be a corridor from Mexico to Canada, through the United States.” We would all

jump up and down and say we have never heard of such a silly thing. But a thing like that was done.

Poland had been landlocked, but near Poland there were three, now independent, Baltic states. There was Russia, the Soviet Union. Lithuania and Poland, for centuries, were one country. At times it was called Lithuania, and then at other times called Poland. Now, let’s say, to procure such a corridor by not even an annexation, but rather some kind of a treaty between Lithuania and Poland would have been the reasonable solution. There are also Estonia and Latvia, which through centuries were part of this Lithuania-Poland state.

So, they run this corridor through Germany. The corridor ended in Danzig. There was this major port of Danzig. They called it a free state in order to make it more palatable. This was part of such consideration talks. If Danzig can be a free state, so can Lithuania. Danzig was a Hanseatic Town. It goes back as far as the Hansa Company, which preceded Columbus by a couple of centuries.

My father and those who had fought in the First World War didn’t welcome this imminent war at all, but they saw all kinds of reasonable points to correct the inequities created by the Treaty of Versailles. They were supportive of Hitler, because he represented: number one, one nation indivisible; and number two, he offered the promise of economic betterment. This is under-played, but in Austria before Hitler came there was an unemployment of ten percent, and men were in the streets playing guitar and holding out the hat, individuals who were fully capable and desirous of putting in a day’s work—a day’s, a month’s, a year’s work. In addition to that, we have to consider that at that time one family had one wage earner, and the unemployment compensation that the state

offered, which was very little, ended in six months. So, there were now a good number that, in addition to these ten percent that were unemployed, were not listed on the unemployment rolls. They just weren't. They were no longer on the paper as subsistence demanding, or subsistence entitled.

Six months after Germany united with Austria, you couldn't get a brick layer or a carpenter or a roofer! They all had jobs in the reconstruction of Germany, which of course, spilled into Austria, including the construction of the *Autobahn*, the freeway system.

Hitler's regime was not looked upon as evil at that time. How could it? I don't think it was evil at all. There may have been one or the other jerk who was a revolutionary by disposition and suddenly was washed up into the position of a chief executive officer, which he wasn't competent for anyway, but it happens. Otherwise, the government in Austria was very . . . was commendable, put it that way. In addition to that, it has to be stated that if any one of the newly washed up officers committed any lawlessness, he was punished barbarically, much more severely than what would have happened to him if he had just been a follower. The increased position meant increased responsibility and was followed through. Most of the punishment was forced labor. Yes, it's true, there was a jail where the individuals were kept idle, but not for very long. It was felt that the jailbird had to earn his keep while he's there, and not only his, but there must be a surplus, too, that he has to earn. So this was a sentiment that prevailed throughout all layers of society.

Hitler himself was . . . at heart he was an architect. At one time—it could have been late 1939—shortly after the outbreak of the war, a lot of public construction endeavors and

projects were still going on, and one of them was the opera house in Linz, which Hitler had attended quite often when he was a schoolboy for twenty-five cents apiece in the highest galleries, standing-room-only space. So, he felt that the first thing to be reconstructed was the spectators' part of this opera house. Soon, the work was done, but the scaffolding was still in place.

One morning, about five, after daybreak, one of the policeman was on his rounds near the opera house, and there was one guy crawling around the scaffolding, three, four stories up. So, he called him, "Hey, you!" So, the man answered. The cop looked at him; it was Hitler! Whereupon, the policeman was quite impressed and ran as fast as he could to the police station and told them. He said, "If you don't believe me, go see!"

Hitler had come to Linz with his chauffeur only, no bodyguard or entourage or nothing, to make sure that the workmen did their job on the spectators' part of this opera house. So then, came running various old schoolmates—since he had gone to school in Linz for awhile—and other officers, and then they had lunch together in the Weininger Hotel in Linz that I still remember. Hitler was a vegetarian. The only meat he ate was liver dumplings. So, they had the chef cook up liver dumplings—heaps of liver dumplings.

My father told me afterwards that he had heard from a participant in this small meeting, who knew my father quite well and knew Hitler from school, that Hitler said, "I'm looking forward to the time when I have my parliament, the *Reichstag*, back to help me run the show," because he had been aware of the custom in ancient democratic Rome, that in cases of national emergency the power to rule was transferred from the parliament (then called "senate") to the two consuls, because the parliament took too long

to make decisions and was a waste of money. After the emergency was over, the ruling and governing would go back to the parliamentary government that had been recalled, similar to what Oliver Cromwell did. This was apparently Hitler's design at that time.

Things changed rapidly once the war got started. I think it was before the attack on France, but still not too bad. It could have been early 1940. The war was underway. The war against Poland was the first step, because of ethnic business—ethnic cleansing of Germans—and, certainly, multiple times in numbers over what is going on in Albania right now. What made a world war out of it—as was felt at that time—was Churchill's commitment to respect the borders of Poland of 1939, which he never did anyway.

When it came to details, we were ignorant, because, as I said, this was also an economic issue, and for the student, the economy ends with the sandwich. At first, nobody conceived of the potential dimension . . . that war was imminent. The first activity, military activity, was the moving of troops into the Rhine Valley, and that was done under the heading: "This is our land, and we should decide what we do with it." Yes, under our power and full government influence. So, they can't stop the imminent retaking of the demilitarized zone of the Rhine Valley. The Treaty of Versailles provided that no German troops, which were very small in number anyway . . . I think the total number of troops that Germany was allowed was six divisions. They were not allowed any heavy bombs or tanks or any artillery, just mostly foot soldiers, and they could not be farther west than the Rhine. There were three or four bridgeheads situated east of the Rhine.

There were British and French troops in there for several years, and that's what caused the sentiment, "retaking the demilitarized zone," because in 1923 the French occupied

the chief industrial area of Germany, the Ruhr Valley, which resulted in colossal unemployment. There was no place for them to work. In addition to that, strikes broke out, because the French troops shot at everything that didn't look right. There were quite a number of casualties, here, there, there, there. So then, of course, the workers were on strike a lot, and the rest of Germany had to support these people in an economy that was flat on its nose, anyway. This time was in 1923. That would have been the golden moment for the rise of the Bolshevik Communism, but then, Lenin was sick. He had a stroke already, and he had a number of brilliant agitators, all Jewish, and they did not grasp that, at that moment, they could have had the best chance of making Germany a soviet state. But the efforts were dissipated. They were here and there and there and there and there, but the ground was not laid for a soviet state.

Hitler really was nothing at that time. In 1923, after the fledgling Soviet Republic of Munich was broken down, he was involved in a backlash, so to speak, of East German army volunteers and different political volunteers, of which he was one, and for whom he was responsible. I think he had a total of about seven followers or something like that. The police shot at the head of the demonstration. There were about two dozen dead, and a bunch of wounded. They marched around, and everybody ran for cover, except for one man who kept walking straight into the machine gunfire. This was Ludendorff, the Chief of Staff of the German army in the First World War. Some of the soldiers who were on the police force recognized him. He was a brave man. He just wouldn't stop. All the others ran for cover, but what do you do when you get fired on? You find a place near the ground so fast.

WORLD WAR II**WORK SERVICE**

I finished grammar school at age seventeen in early 1940. Then came the CCC [comparable to the Civilian Conservation Corps in the United States]. It was called *Arbeits Dienst*. *Arbeits* is “work.” *Arbeits Dienst* is “work service.” At that time youth were drafted into the *Arbeits Dienst* before going into military service. Then, most of the *Arbeits Dienst* members were older, and I got into it a year or two prematurely, because I wanted to get all that service out of the way before I went to the university, where, once I was there, I wouldn’t have to interrupt my studies. The *Arbeits Dienst* was initially made number one. It provided a work force, but the main thing was that all the boys got stuck into a uniform, no matter whether their father was a big shot or whether he was a proletarian. After six months of time, they got out of that experience. The specter of class struggle, which we now only know of history, had largely flattened, had become a non-issue.

It was Hitler’s design, to take this danger out of his realm in order to make everybody pull in one straight line, instead of several. It was successful in that they professed to show for a time: “Now you guys, now you learn what it means to make a living with your hands—shoveling dirt.” I remember, there was even a song of your daily wages, your daily earnings. The daily wage was twenty-five *pfennig*. Numerous times we sang this marching song. Twenty-five cents—that’s the main theme—the net earnings of twenty-five cents. A beer was half that much. We also received full station and medical care.

The boot camp was about, maybe, eighty miles away from Linz. The training program and work exercises filled the day. There was little free time left. In addition to that, I remember that this *Arbeits Dienst* was called for any kind of disaster duty. I remember one time there was a flood, and the whole company was called out in the middle of the night to fill sand bags and shovel in barricades.

THE SIEGFRIED LINE

During the quiet war of 1939-1940 I was in Austria in this boot camp when all of a sudden, the shooting broke out with France. So, we were transferred to the French border to build roads and finish what fortifications there were. We worked on the Siegfried line. I still remember about the other side, the Maginot line—there wasn't any comparison with the Siegfried line. The officers told us it is not the concrete where you're sitting. Your fortitude is the determining factor. The Maginot line was built largely on the opposite side. That didn't work, although individual areas resisted. The one opposite us was the fortress of Biche, fifteen miles or so. Biche was in Alsace, on the French side. I remember several times the *Stukas*, the dive bombers, came in sixes or eights on their bombing raids. They were very accurate. They used them, because you couldn't see the fortifications from ground level.

The work that we were doing there on the Siegfried Line along the German-French border most regularly was building roads and dismantling army installations like barracks and depots and stockpiles, since they were not in demand or in use any more by the troops, which were a few hundred miles farther west. A good deal of that work was done at night, because there were enemy aircraft around every so often. We were along this line in back of the fighting. The attack troops went by, and sometimes we had to tear down certain sets of barracks and shift them again. I remember one air raid on our camp. It was at night, and there were not many casualties. As the bombs fell I was impressed by their flash.

The discipline at the *Arbeits Dienst* was at least as strict as it was in the regular army. This was just the way it had to be. I was there,

oh, not quite half a year, maybe four months or five, pretty much in the same place.

In the *Arbeits Dienst* nobody had much in the way of political ideas, and that had to do with the fact that, for instance, the soldier had no right to vote. He had to have finished his army obligation, that is, his obligation towards the country, and then he could vote. So, that aspect was not encouraged at all, although we had some patriotic indoctrination. This occurred once in a while, once every two weeks or so, but most of this was of a historical sort. A person who was a professional soldier, like the man who intended to become a sergeant or intended to become an officer, he did vote, but other-wise, the soldier was not in the political arena at all. There were lectures, but they were in the use of equipment, and probably what to do in case of an air raid.

The United States had to make Hitler a big bugaboo, because other than profit, the United States of America had no cause to join a war against him. There were no conflicts of interest at all. Conflicts had to be built up somehow, and one way was by inflammatory statements regarding the enemy, which worked well in the First World War, and worked in the Second World War, too.

Hitler had a nickname: *Bröselmeyer*. I heard that every so often, and I also heard other acronyms, but *Bröselmeyer* I heard when I was in Munich in the army. It's something like a "John Doe."

The sentiments toward Hitler, originally, were patriotic. They were not colored by anything bizarre. There were some fanatic kids around, and there were some, let's say, with sentiments on both sides of the fence. I don't remember any contacts, or persistent contacts, with, let's call them, political activists. You know, once in a while there was a discussion about this and a discussion about that. For instance,

there was one chap in the *Arbeits Dienst*, who was a “communist.” Well, on the other hand, he came from Vienna. His father was a railroad man, and as such, didn’t earn much money, and then he died of TB meningitis—tuberculosis being rampant with the lousy housing. There was a fountain outside his house in Vienna. I remember the man was very polite. He was just convinced that an international brotherhood was the basis of hope, so to speak, but this all remained somewhat theoretical.

FIRST YEAR MEDICAL SCHOOL

Mid-fall of 1940, I was discharged from the *Arbeits Dienst* because of my intent, already documented and expressed, to serve in the army before I was twenty-one. All those people who tried to embark on an academic career tried to do that, so that their studies would not be interrupted halfway through their student years. On those grounds, I was discharged about two months earlier. Otherwise, I think the discharge date from the *Arbeits Dienst* was about Christmas or New Year’s or something like that. I got out early, and as a matter of fact, the minute I was out, I appeared at the University of Innsbruck with the request to inscribe as a medical student. At that time, all you had to have in order to be eligible was your graduation certificate from the grammar school, which also contained all the grades that qualified you.

So, I went to Innsbruck, to the university, with my grammar school papers and certificates, and asked for admission. I was admitted and started going to classes in medicine. However, I wasn’t there very long—about three months or so—till about December, 1940. When I turned eighteen, comes the blue card, “Report to such-and-such barracks in Munich.”

So, I was very much impressed—negatively impressed—by this recent development, “What the hell do I do now?” At that time the deanship rotated within the faculty, so the dean is a professor himself, not a bureaucrat like we have in the United States. Each one of the four classic faculties had a dean. So, I went to the dean of medicine and showed him the blue card. The semester was going to go until nearly Easter, at least for another two months. So, the dean said, “Well, you go to every one of your professors with your book where all the classes are written in.” There is a column where it says the professor certifies that the man has inscribed [or registered], and there was another column for the professor to sign when the course was finished. Where there’s some forty students, you see and know everybody. So, at least, I had the entrance signatures. I had collected them all. The dean said, “At the end of the semester, you go to the same professors again, and they have to sign that you were there. They saw you. You go to every professor. If all of them sign your attendance, I’ll give you credit for the semester. If there’s one signature missing, you’re out.”

Man, was I busy then! I went to every professor, and I got my signatures collected, came back to the dean, and he gave me credit for that semester, and from then on in 1940 I was a certified, accredited medical student. Very important.

The medical school was ten semesters. In these ten semesters you have to go through eighteen exams. Most of them are at the end of those ten semesters. So, you could figure that you need another semester, at least, to finish your final exams. It’s about five and a half years. Then, you would be ready for internship.

I knew I was going to go into medicine. I didn’t have a particularly great calling, if that

were mathematics, and none at all for law. I was very interested in any kind of what we call biological sciences. This was not the only interest I had, but this was one that moved me towards medicine.

I collected everything, you name it: bugs and frogs and snakes and lizards and birds, and if you had a new thing, then a house had to be made, and a proper feeding had to be researched. I was very interested in this direction, and that had to do with my decision to go into medicine.

I had had a good general liberal arts program before that in grammar school. For instance, the mathematics that we were taught in this grammar school included differential and integral mathematics, which in the U.S. we call calculus. Then, we had geography. We had history. For instance, in geography, anyone who wanted to go into the following year had to be able to rattle off the forty-eight states of the United States of America—just like that. So, a lot of emphasis was placed on just learning and memorizing. Then, we had two years of physics, three of chemistry, then seven years of Latin, then four years of English, four years French, music. There was a little bit of physical education, not a whole lot.

I can't say I was fluent in English after that, but to read a newspaper with a dictionary, or a book, yes. French, the same thing. What we all lacked is the talking. On the other hand, both in English and in French, I was at the stage where, with three weeks in the respective surroundings, you talk. So, you have to know about that much. Russian came later, and I will explain that.

In that first semester of medical school I took about thirty hours, thirty-two hours a week. It was anatomy, physiology, physics, chemistry, organic chemistry, botany, zoology, history of medicine—and that's about eight subjects. This might be all of them, because

anatomy, for instance, was an hour a day. We had lectures in the morning, and in the afternoon physiological chemistry had a lab, and anatomy had the dissection lab. Physiology also had a lab.

It was really what we would say, "senior college," and with a little spilling over. The curriculum is slightly different from the curriculum in the United States. They divide the study into pre-clinical and clinical subjects. As you know, the pre-clinical subjects come first, and a good number of these in this country we teach in senior college. Bacteriology came much later than it does now, but this is where things have changed with the advancement of research.

We dissected a couple hours every day. We went through the whole cadaver the first year there. First, before we came to any dissection, they brought preparations of extremities, muscles, joints, and bones, and made us work with heaps of clay, modeling clay. "And you make a femur. And you make a forearm, and you make the . . ." something like that, to give every-body an idea that a muscle has two ends, like a sausage, an up end and a lower end, and what the professor means when he talks about joints. Then came the real dissection.

We were really busy. In this semester there were more than twenty students in each class. I know the anatomy professor bitched tremendously about how can he remember permanently twenty faces every year? He said that's too much, too many.

We had hospital facilities in the medical school at Innsbruck, but that came much later. You walked by, but you didn't have any business in there.

The semester was about five months. If I remember this correctly, I must have come in mid-September. I know I wasted no time: just home, change clothes, Innsbruck, already in the office asking for inscription. I was just

eighteen that fall. By early December I had one accredited semester of medicine. A few days later, I was in Munich in the army.

BOOT CAMP

Boot camp in the army was strict. There wasn't any, I'd say, chicanery at all, unless somebody had goofed up. I had to learn how to be a soldier and what to do with shooting irons. I had the benefit that I had been those few months in the CCC, so I knew what type of discipline I was going to face. When you get up in the morning, fifteen minutes later you have your uniform on, and if it's your turn, you go over and get coffee for the rest of the group. All these things I was familiar with, but what I was not familiar with was the equipment, because my assignment was that of a radio man. I don't know how I got into that.

The radio group that was our messenger group or communication group was for the infantry level. All the equipment that we had to learn to work was all portable. You have to operate it no matter what temperature and, I wouldn't say under water, but damn near.

I remember, they brought this whole bunch of 160 guys, this batch of draftees, and ran us through some kind of a test. For half of them, they said, "Now, you train for radio, and you train for a telephone." Eventually, the radio guys had to learn the telephone routine as well, of which there were two. One had a reach of 500 meters—that's not quite half a mile—and was connected by a thin wire that you had to lay. It was in a spool eight inches in diameter, hand held, and you'd have to run and stretch your wire from here to there. By the time you are there, the wire is interrupted already, so you go back and do it again. Then, there was a heavier set of equipment that, I think, had about a mile and a half of wire that was to be carried on the back, but every radio man also

had the same rifle and the same number of shells to carry as the ordinary infantryman—sixty shells. The radio team consisted of two guys: one carried the radio, and the other guy carried the batteries, which were quite heavy. Each one was about forty pounds altogether. Then, when in action, the two of them stayed together and connected the two parts together. They were both trained in operating the whole set.

So I had to learn the Morse Code. As a matter of fact, I remember there was a guy who had worked in a bank, and another one—I don't know what he was—and me. We were the three top radio men, so to speak. We would do between sixty and ninety *letters*—not words—per minute of Morse Code. That's pretty fast. You have to be good, really good for that, whereas the average for the company was sixty and below. Then, you had to learn a number of codes, and if the transit was to be coded you knew how that was to be done. This was with a piece of paper that had squares on it.

Then you had to have your regular infantry training as well. You had to know what to do with the *Maschinegewehr* 34 or MG-34 ("machine gun rifle"), but we were not trained to fire any mortars. There were two types of mortars. One was really small, two inches diameter, and one had five centimeters. That's more than two inches diameter. We knew what to do with it, but officially, we were not trained to use those goodies. We did have to operate the MG-34.

The training as a radio man was with the whole 160 people. Then, they were split up into assignment so-and-so, assignment so-and-so, assignment so-and-so. They were then mixed up, communication by wire, and the same communication by radio.

There was another one we had to learn, a light, a blinker, which goes very slow. The German army had lights. They were about

four inches in diameter, on a tripod, and they were very accurate, but I haven't seen them used in combat at all. They are too stationary. You have your light here, and you have to know where the other light is, and the other guy has to be there all the time, watching for the light signal, whereas by telephone, at least, you hear it ring, and by the radio, you hear a beep.

INVADING RUSSIA

Training might have been two months, or maybe a little more than two months. And then, we were sent to a reserve unit in Poland, which was east of Warsaw, between Russia and another town, Bialystok, on the Bug River. It was the only stop on the border between East Poland and West Poland. I don't know whether it's still Polish, or whether it's Russian.

The invasion of Russia was already underway. We smelled the rat, but nothing was hot, so to speak. In Poland there was a lot of military around, anyway, that was leftover from 1939. Then came new troops, and the originals were sent home. What gave me the first idea that there may be plans for crossing of the River Bug was that several times we had to practice making rafts with gasoline barrels, lashing them together, and paddling in the water. We didn't do it in the Bug River—that would be inside the Russian territory—but we couldn't figure why we would have to learn about or practice with such a thing, if it wasn't for real.

Most of the guys in my company were in their early twenties, regular conscripts, and we early servants were the youngest. We had long-distance marching, to reach another training point. It was the minimum of twenty-five miles a day. They called them traveling marches. And that included all the equipment, not quite heavy, but medium heavy equipment, that you have to bring along. We had our radio

and our own pack, and then, the company has the machine guns, and the company has to, somehow or other, bring ammunition, and has to bring a field kitchen, and then, of course, tent material and blankets and things like that.

So it's not going lightly, but on the other hand, later on, eventually, we got way above twenty miles between daylight and dark. The weight we radio men carried was forty or fifty pounds each. A guy carried sixty rounds of ammunition, and he has his rifle. Then, we rarely carried gas masks, but quite often a spade, a shovel, and a canteen of water. By the time you put all this up . . . and the dang radio was so heavy—close to forty pounds by itself.

All the guys carried something extra in addition to their own pack and weapon. Now, the pack was for the active infantry. The pack was kind of divided. There was one rucksack, and then the men had a frame-like device where you hang the rucksack. It had two straps in the front and one in the back, and on this triangle you could hang a lighter pack, which was on the outside of the rucksack. There were no extra shirts in it, for instance, but there was a mess kit in it, and then part of a tent (a quarter of a tent) and the blanket, but this was all. So, you could survive on that.

The German tent had four parts. You mixed your part with the other three. And the rifle goes in the middle. You can pass the night with two or three, but eventually, you need what's in your rucksack. When we marched into combat the thick part of the rucksack was in a wagon and came later. But the little item the soldier always carried, and the radio men had to swindle a little . . . put the mess kit somewhere here on the belt. He's got the back to that box.

The most miserable experience I remember is that you carry the radio on your back, and you lie down. Say, there's fire, and you lie down in a hurry. Then, this radio jumps forward

on your back, hits the back part of your steel helmet, and the front part of your steel helmet goes over your face and on to your nose. So, first of all, you can't see. Then, when you get up, you have to get organized again. By the time you get up, they feel another one coming, and down you go again.

We had a steel helmet. The German army had one helmet. In America, we have the plastic helmet liner and then the steel cover. The German army had just one piece. It's not all that good as it might look, because a splinter from a shrapnel goes in. Maybe very small ones don't, but a bullet has no problem at all going in and then out the other side. It doesn't ricochet off. There's not enough of an angle. That would be very far on the outside, and it reduces the brain concussion. It's like hitting him with a sledge hammer. But the soft pieces, like rocks, bricks, or pieces of wood, this is where it's most useful.

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I remember, that in the middle of all this training, all of a sudden, Rosenauer gets an order to go back to Munich and be trained as a corpsman. All right. This didn't take long. I think, I might have spent, maybe, three weeks, or something like that. In those three weeks the deployment started for the attack. Then, with all this corpsman training, the trained fellows were sent on back to their units, but this time, I was no longer a radio man. I was a corpsman. This was in late June of 1941. I remember that by the time we got back to the unit, they were already over the Bug. They crossed over the Bug River on the twenty-second of June, 1941, and I might have been a couple of days later, so I crossed the Bug when the fighting was already over on the other side. They were already on Russian territory, or at least in

that segment. Now, in other segments they were not so far ahead.

Several of us replacements were assigned to the same unit. We mostly walked all the way. Once in a while you found some column that would move east and take you along, but the majority of the small connections, you made on foot. By the time I caught up with my unit, three weeks later, I know that some railroad traffic had already been established. It didn't do me any good, but it already existed.

My unit was near the city of Minsk, which is the capital of what's now called Belarus. We stayed in northern Ukraine, south of the main attack wedge that was driving towards Moscow.

In the course of all this military eastbound movement, the season advanced into fall, and it got rainy at times. Now, in that part of Central Europe the western-most rock formation is in the Carpathian Mountains, and then farther east, nothing for 800 miles until you reach the Urals. That means that the yearly rainfall transforms the entire continent into muck, which Napoleon already called the fifth element—next to earth, air, fire, and water. Nonetheless, and apparently in hopes to eventually find negotiable roads where troops could move more speedily, we were issued bicycles. However, there were far too few roads that were paved hard enough, so these bicycles became nothing but a burden. The muck got into the wheels, and as we advanced crisscross through the countryside, straw and grass got into the apparatus, as well.

We were just frustrated—and how! There's no road where you can bicycle, so you have to push that thing, and particularly, then, when it froze, the bicycles were even more worthless. One evening I remember that I was on the ice of a pond, and very mysteriously, a hand grenade went off, and the bicycles sank. I was accused, but it was never proven. The unusual thing was that the bicycles *all* were put together on this

watery hole. There were eighty, something like that, but a significant number. They rotated, so that some poor bastard always had to push one of these monsters. Each one had a piece of wood to work the muck out, and since you go up and down and through fields where there is straw and grass, this becomes a very tough medium that puts it to the test. It's a useless, bureaucratic experience that I remember.

This was already getting into fall. I was first-aid station line, so I was at least out of the infantry fire—not always, but most of the time. I had to go out and retrieve the wounded and drag them back and move them when they got evacuated. Sometimes we had casualties, and sometimes there would be just a week or so where we didn't have any contact, and the combat units didn't have any contact with the enemy. There were about six doctors in the unit. They had all graduated. For an officer in the general army medical corps, you had to have a medical degree, and some were surgically trained.

There's a lot of wretchedness, so much misery associated with combat. You've got a couple of guys right next to you, and they're just lying there and might be heading for a miserable death—having lost a leg or something like that, or an arm. The replacement blood keeps running out.

Eventually, we had to contend with typhus, which was endemic in that part of the world. The soldiers just had to put up with it all. Not much you could do about those lice, even though lice carry diseases. The Russians had a delousing powder, which we tried to get from the dead. It was a brown bottle with a mixture that smelled like spices. I think it was a mixture of plants or plant matter, and this is what it was used for. It was an organic powder. DDT wasn't out yet, but they were working on a vaccination for typhus at that time. There wasn't a whole lot of vaccine around yet. The disease was sporadic

at first, and then later on got too much out of hand. You had so much lice and their eggs. You squash and kill all you can. And they are back the next day. These were not head lice.

I remember the first time we were deloused. This was in a new town, and it was cold out again—snow that day. The whole unit lined up, and the sergeant came and explained. "This is going to be delousing. All your uniforms go into a steam machine. And you guys, you go into this house," which was sort of half-way dug into the dirt, and there was an enormous fireplace in it with wood burning. We heated water by every means we could, throwing rocks into kettles and there were innumerable buckets but not enough. We just got some water and washed ourselves off. However, there is a transitory period, because you have to get out of your clothes, and then run over to this house, stark naked and in the snow. Then, some other guys come and take all your clothes and stick them in this steam kettle, and then the sergeant would say, "All right, you've got three seconds for that, and five seconds for that." Then, he says, "I will go over to the house, and when I blow the whistle, you get out as fast as you can. Everybody run to your place and put your uniform on." He didn't have to tell us how fast. This was ten above zero. It was awful cold. And that's just the way we were deloused.

So, everybody was in very good spirits, having been deloused. "Well, it itches a little, itches here and there, but I am deloused. I am deloused." So, one guy, I remember, who was sitting as we were eating, about a half an hour after the delousing . . . this guy caught a louse, and it was live, so then he put it under the fingernail and squashed it. Then, another guy caught a batch. So, we all made an agreement. No more than six lice. Well, we ended up with 120. It was a substantial infestation.

Every halfway decent hospital in Poland and Russia had its own delousing unit, but

the heat, as it was used then, simply wasn't sufficient. They piled all those uniforms in as fast as they could, then turned the heat on for as short a period as possible, because there's another unit standing there waiting already, so it was just like using halfway sterilized instruments. It's a bust. The best thing was that you could wash in warm water. All of our things were getting progressively more filthy.

I remember one incident where we were all crammed into this house—there were people living in there, too—and more soldiers came in and more. It was evening, and somebody had brought a wood chopping block and stuck it in the fireplace. That was the heat that we had. Every so often the door would open, and some guy would call in, "Number six, out! Number four, out! Number twenty-four," whatever it was. A couple of guys would get up and get their rifles and run out. They did whatever they were asked to do. I wasn't called.

I remember when, after a while, with so many guys being piled into this house, that a board from the floor crashed, and nothing happened. In the morning the first thing I found out was that I was in a couple of beehives, but the bees were also frozen cold, so they did not get active at all.

What amazed me so much is that the wall in this house was pasted with copy books, school books. Generally, it was a newspaper that they plastered on the walls or something like that, but these were school copy books. I looked and, my God, these were very well done with colored pencil and consisted of transverse sections of the human spinal cord. And of course, after one semester of anatomy I was hot at that. The whole wall was full of it. So, I talked to the lady, *Matka*, the mother, "Where's it coming from? Who brings it home?"

Well, she said, "The children bring it home."

I said, "Was this from school?"

"*Malaya Derevnia*." I had already learned a little Russian. *Derevnia* means "village." And *Malaya* is "small." We had taken that *Malaya Derevnia* the day before. So, the *Matka*, the mother, told me where the children got these books. She was not amazed, and not excited about that at all. It was just, "So?"

Having had a semester of anatomy, I thought, "If they learn this in this school, which I had seen, and which was a Grade A dump—by United States standards it would be condemned and burned—and nothing could be taught in this dog house!" But what they turned out in teaching was just astonishing. It was particularly astonishing to me, because what little literature I had read about the world revolution indicated that Soviet Russia called for destruction of all social societies and institutions, and the new social order was going to be built upon the remnants. And then, I see that these youngsters are way ahead of me! There were more incidents, of course. I had my doubts about whether I really was in the right boat.

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The ability to travel, particularly with these first-aid stations, was reduced commensurately with the temperature. The automobiles, trucks, et cetera froze and one right after the other just gave up the ghost. So then, more of the communication and the transportation went by horse. Now, some of the units had brought horses and were traveling by horses from Germany, but those horses were big and not durable. We "requisitioned" local horses. We called them *Panje* horses, which means "little man." They were unbelievably enduring, but they could not do a lot of pulling heavy equipment. Quite often, if it had been snowing overnight, there were piles of snow. There were some piles, when you shoveled them away,

there was a dead German horse beneath the snow. Next to this there might be another pile of snow with a *Panje*, quite alive, jumping up, shaking itself, having found something to eat.

At the end of this strung-out line of marching soldiers carrying packs and hauling equipment, there was one horse that they had just found. "That's not good for much anyway." So everybody shoved baggage of one sort or another on it, but it was in the back of the column and trying to keep up. At that time I was the end man, responsible that nobody fell behind. Now, there is this horse. So I got on that horse, and it carried me for awhile. It didn't do so very long, since it had been ill-fed. Its back was very sharp. It just barely kept up with the troop. I shot it, eventually. I didn't eat it, because it was not much more than a skeleton of a horse.

There were other horses around from time to time. The old man said, "Oh, Rosenauer, I didn't know that you can ride," So, he gave me a horse, which looked very good. And it had a saddle on it. So then, it was my job to ride over to this or that village and see whether this or that creek was fordable, and make reconnaissance trips. It wasn't all that smooth going, because it was in the rainy season already, so there were all kinds of puddles and small ponds and bigger ponds. Often the horse wouldn't want to go through, so I had to lead it around and get on it again. At least, that one I remember as being halfway a transportation.

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The supplies became delayed and delayed and delayed, longer and longer and longer, which means that the soldier starts to steal and eats what he can get away from what the farmers had. They had mounds of potatoes, and half of them were rotten. Well, they got eaten. And then beets, consequently. And

the next step is intestinal disease. I think my downfall then was a bottle of fat that I got in one of those farm houses. I don't know whether it was rancid old butter, or some kind of a fat, but it was consumed. From then on, it was a straight line of diarrhea for weeks—and I was not the only one. We split our pants open behind, because you couldn't get them down fast enough, which means that the German army spread intestinal disease *wholesale* in these provinces. We had some medicine, some sulfanilamides, which are good for various intestinal pathogens, but then you have to have the patient in halfway decent, regular circumstances. He has to be clean; he has to be able to wash his hands and follow a somewhat civilized routine, none of which was possible then.

For drinking water there was mostly snow. We'd melt snow, and if a creek was open, then of sterilizing there was none. The iodine pills had been finished long since. There simply was no new supply. It had to do with the fact that at that time eastern Poland had a very severe winter, and the railroads in Russia have a different gauge. The rails there were one meter apart, compared to the rails in Germany, which were one yard (three feet) apart. They all had to be re-nailed. The roads that there were, as long as they were not frozen, were not passable for vehicles with tires. Well, good, some have chains, but that's the minority, so that means that the transportation back and forth of these army units became less and less and less. Most of the tanks were frozen.

Quite often an injury, which otherwise would have been certainly treatable and curable in a soldier, just became fatal overnight. The men couldn't get warm, couldn't walk, or couldn't move, so it just was one more casualty.

When possible, the wounded were evacuated by horse and buggy. Then, eventually, it became the only transportation. Those that

didn't reach a place that was a railhead—they were out of luck. I give you an example. At one time when we were all crawling through the snow, there came a sleigh, and there were about six guys on it. One walked, or maybe two walked. The others were just asleep on that sleigh, and they didn't look good. I could tell they were from the infantry that was ahead of that first-aid station, which I belonged to. We had noticed that we had had no casualties for a few days. I said to one of the guys, "Who is on the left?"

"Don't know."

"Who is on the right?"

"Don't know."

"Who are you?"

Then, he told me what number company he was, and those six were the last of 167 men. This meant that there were gaps in this "front". In fact, it consisted of nothing but gaps, and those six didn't look like much combat. The first-aid station that they would have been referred to, namely ours, didn't look like much either. It was pretty grim. Once in a while some transportation got through, and then not.

Later on, the big military wondered what the ordinary soldier was wondering. I know the Russian army had lost its best troops, because the German army had struck their deployment. So a good number of otherwise capable army units, Russian army units, retreated in panic, not because they were pushed or not because of a push sufficiently hard, but because they had become disorganized.

So, the Russians tried to bring fresh troops from eastern Russia, western Siberia, which took its time. They were not combat trained, so what was left of the German army, for quite some time was confronted with a well-equipped enemy who didn't know which end was up. They would be scattered by contact with a very inferior force. So guys running around in Russian uniforms and half civilian

clothes, were the other side. We knew this was a soldier, who had just come from a unit that had disintegrated.

They had the same, if not more, difficulties with supply, except that the locals contributed. I saw a good number of frostbitten fingers and toes. So, they were immobilized by the weather just as much as we were, although they were a little better equipped, but they were in no array, no condition, and had no training order or plan to push against the German army, which wouldn't need a push at all. It was just not there any more.

Once in a while an airplane came. They were mostly Russians, and they came at night. When they knew where we were or when they saw a light they threw out a couple of bombs. There would be a second man in the rear seat who turned back and threw some bombs out. Most of what they struck, therefore, were civilians anyway. But I remember one such "attack" that cost us a few men—maybe two or three bombs—so it was not a very organized attack.

At that point it was during the initial period. The relation to the civilian population was peaceful. It is true that the Red Army propagandized and praised the action, but that's all that they could do. They called it the *partisan* war. They called them *partisans*, *partisan*. Those are the same thing that the French called the *Franctireurs*, the "free shooters." They encouraged civilians to sabotage and shoot German soldiers. To produce this you have to create strong sentiments first, and they were not yet created. That came much later, and in some areas, fiercely, and in other areas, not.

My father told me when he was in Chernigov, in western Ukraine (near where Napoleon crossed the Beresina), he had a visiting general one time. He showed the general this and showed him that, and the

general says, "Well, when you go there . . ." like my father and a school teacher went to where Napoleon crossed the Beresina to dig for belt buckles, buttons, and souvenirs of that sort. The local museum was just full of these things anyway. All right, so they had something to do on Sunday. But this general, or whatever he was, said, "Now, you travel around without other soldiers and without a bodyguard?"

"Why?" my father said to him.

"Aren't you afraid of *partisanky*?"

So, my father said, "Don't have any here. All is quiet."

That was early 1942. It depended very much on how the local occupation troops behaved. Where they treated the civilians "nicely," then the *partisanky* were not so numerous. Where they were brutal toward the civilians, then there was more tendency for an active *partisanky*.

That brings up the point about how I learned Russian. I knew there was a Cyrillian alphabet, but I didn't know much about it. I remember we went to a town called Bryansk, on the Desna River. The German troops moved rapidly through that town, and there was still shooting on the other end of town. Then, my unit went, advanced, ran, walked through the barracks grounds. There some burned and some didn't burn. I just got into one of these barracks, just out of curiosity, and out another. There were doors open, and there were officers quarters, and then one of these offices was full of maps. Ha! That was my interest. So, I stayed there for about half an hour, while the other guys ran around outside, didn't know what to do. I looked at the maps, and I could identify rivers, and I could identify borders, so I found a few that showed where I was sure I was, and those I took with me. Then, with pencil I figured out the Cyrillian alphabet. There is the city that I know, and you call it like so. Well, then I find

it on the map. The name on the map spells this way. Then another one and another one; then a river. I make myself a primitive dictionary, and after the map-reading I could read other things too, not a whole lot, but I also learned very important words, such as, for instance, "Hands up!" or "Good morning," or "Where do you hurt?" or words like straw, meat, cow, hungry, day, night, how many. Then, I learned how to count, and eventually I did know so much that I could ask simple questions and understand simple answers. The only one who beat me in this battalion was the clerk, who was an intellectual, a priest. This guy had a dictionary, a printed one. So he was way ahead of me. So, from all these maps I learned the Cyrillian alphabet, and I learned some words.

I later lost the maps, and this has to do with what we'll get to later. When you start to worry about typhus, the delousing procedures get more and more severe, and they get down to the skin. Although it says that you can leave your personal belongings, like a pocket knife or something like that, in a special wrapper, even that gets lost until later, or somebody steals it. So eventually, you end up with what's on your skin.

Christmas Eve 1941, I remember, was mostly a very fast march. I also remember I had a horse again at that time, which I shot. Then I remember in the evening we got into a schoolhouse, and it was full of soldiers. I found a place to sleep under a piano, which was not so bad, but all of a sudden, somehow or other, in the middle of the night there was a big bang. I thought maybe somebody had shot a bunch of rats, but it wasn't that. One of the piano legs had broken, and the piano had come down, but I was on the side where the legs held. All at once a big piano falls on your nose! There were guys on top of that piano. That's why it broke down. I would have been squashed, if I had been lying on the other side. I suppose

somebody got it, but I don't remember who it was and how.

So this was around Christmas, and we were on the move. No shooting lasted very long, because the hands froze, and particularly those of the machine gunners. The holding onto cold metal is detrimental. You either had to take your glove off, or the front side of the glove isn't there any more, then. It doesn't take very long, and the skin makes blisters—and the war ends now for a while. But the other side was not better off. Now, the Russians had cotton mittens, and I know it, because I had some for a while, too. They had an extra index finger, a trigger finger for the index finger. When you're through shooting you put the index finger back again into the mitten. It feels very clever. But we had nothing of that sort. As a matter of fact, the German army had leather boots. We saw those Russians with their felt boots. When it was cold and wet, they stuck the felt boots into galoshes, low rubber shoes. That's probably a good thing. I could tell that on the soles of my army boots . . . their days are numbered, and if I don't get something better, then the toes go with it. So, I found in a house a pair of these felt boots, and that saved my toes. The only disadvantage is you have to be careful that they don't get wet. When they get wet the odds are very bad, but as long as they stay dry, they keep your feet dry.

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We were moving along toward Moscow, but the farthest we got was to a city to the southeast of Moscow that was called Ryazan. Now, Ryazan never got into German hands, but this is where suddenly there was an end. I think it's over a hundred miles south of Moscow. What was left of us then retreated and retreated to the southwest, and then we bypassed a few cities. One was called Tula,

which is an old silver-manufacturing town, and it's fairly sizable. One was called Kaluga. I don't know whether Kaluga could have been in German hands at one time, but it was then abandoned again. Then, the retreat came to a stop. I think it was on the river Desna, which eventually runs into the Moskva.

The Russians were behind us, but did not push. Did not. They didn't do anything. We were not getting replacement troops—we were the replacement troops. In the essence there were the combat troops that get decimated the most. Then, eventually, the next line gets involved in combat, and they're not equipped and are not trained. Now, they get ground up rapidly if the other side is capable of doing so, but the other side wasn't capable of bringing anything to bear. They had just as much trouble with their trucks and with their tanks and with their supply, and I don't think Moscow was all that heroic at that time. I think there was a lot of panic and a lot of officers and command posts started moving east, like towards the Urals, and this may have contributed to the slow, well, I wouldn't say recovery, but slow advance of the Russian army in early 1942.

STRICKEN WITH TYPHUS

At least for several weeks it was quite silent. There were almost no casualties, but a steady stream of frozen limbs, frostbite, and typhus. The typhus started before Christmas, but it became an epidemic in mid-January. The first-aid station was in a house, a schoolhouse, whatever it was, that was filled with straw on the bottom, and there was one guy right next to the other. When one died and got cold, then we could see the lice in streams, crawling over and over the straw, over to the next guy who was still alive.

As a medic I was taking care of these guys. First of all, there was no cure. The mortality

rate for typhus was 50 percent. It isn't that high in instances where the patients are all adequately fed and housed and washed and cared for, but with the reduced circumstances, which those were, the chance of survival was not very good. And lice were ubiquitous.

There was a very small amount of vaccine. I was vaccinated against typhus, which might have contributed to the severeness of the illness, because they gave three shots, and I think I got either one or two before I went under. Like with all immunizations, there's a period where you had better not get that disease. You haven't got a build-up. You're only a tail-dragger. They vaccinated the personnel who were closest and had the most to do with typhus patients—I was one of them—but the vaccine didn't go around. They had, maybe, fifteen units, or something like that—totally inadequate. I don't know if the vaccine turned out to be effective or not, because I was one of the first who got vaccinated. The rest of the time I wasn't there anymore.

I knew what to expect. The minute I got a fever I knew, "Fellow, your number is up, with the chance of one out of two." Some people with a quicker onset get a headache, which in essence is encephalitis, but I didn't get much of a headache. I don't really remember much. I might have staggered around some, but any memory of that time is gone. I fell sick in February of 1942. I remember waking up the first time I knew something clearly, or halfway clearly. I was no longer in the battle unit where the first-aid station was. I was away from there, but where, I have no idea. And I was just lying on a stretcher. Everybody else was in the same situation. Then I just slept on. I ended up, the next time I remember something, in a city called Orel. Orel is in northern Ukraine, and that was a railhead already. At that time I don't remember whether there were any bed sheets or not. It was still very makeshift.

I didn't have a uniform any more. Well, I remember that later I had a pair of trousers, some pants that were made out of that same material as a sweatshirt. It was the German army sport outfit in peace time. Every soldier had four uniforms: a parade uniform, an activity uniform, so called; then he had a work uniform, which was like blue jeans, but not dyed. It was white but of the same material. Then he had a sport unit for physical education—a sweat suit. I remember this is what I ended up having.

This place where I woke up the second time was already an edifice that had windows, glass windows, and the walls were painted. I don't think I was in a bed. I remember the grounds there. There was nothing for a while again, and then, I remember being on a stretcher. Somebody gave me what you would call a disease tag that every soldier got for his rank and his serial number and his disease or wounds—a medical service record. It was not big; it was, maybe, four by three inches or so. Somebody tagged that on me while I was on that stretcher.

Then, I know I was in a cattle car that had an iron stove in the middle. There were one or two guys in that cattle car to heat the stove, and the rest of the crew were all casualties, and they were in straw again, nothing else. The first two guys—they were corporals, and they brought you something to eat, which was nil anyway. How long it took me from there to the next place—which was near Warsaw in Poland—I have no idea. It was very snowy outside, and we were cold. It may have taken a week or more, and I know several times the train stopped, and there was some shooting. So, you think, "Well, I've bought the farm." But most of the time, I was such a wreck I didn't care. I think they weighed me at one time, and I weighed not quite fifty kilos. That's just about a hundred and ten pounds

or something like that. I was just a skeleton, just a bunch of bones.

I don't remember any IVs. I doubt that there was enough material to get the basic type of supplies. The casualties were mixed—there lies one guy who has an open shrapnel wound. We did use IVs in the aid stations when we treated casualties. There were two different types of glass vials, so long, and they had different types of IV fluids. Various sets were hooked on here and hooked on there, and then the blood transfusion was always man to man—the direct transfusion.

Then, I got to Warsaw. I think in Warsaw we were unloaded and put in a great big building, most likely a school. I stayed sick pretty much with the sequela of this illness. I knew that all along I had had breathing difficulties. It may just have been, I think, a palsy or something like that, because you get all kinds of new symptoms with the typhus. So, I thought I had it. I just planned to stay on that straw sack.

This was now two or three weeks after I got sick, because I think the first week there wasn't anything, and the second week we would have been in that Ukrainian town, plus the transportation; and the third week, then, in Warsaw. So I thought that it was over. Then, I came to my senses, and they were very interested in me. They pulled me off that straw sack so fast, put me on a stretcher, and off they went. That was when I ended up in a bed. I remember that.

I was in Warsaw, and how long I slept there, I have no idea, but this was the hospital where my father found me. It was a miracle, he said. At that time, he was in the military police, and he told me he was patrolling the trains from Warsaw to Paris, Vienna, Strasbourg, so he found out that I was alive and where I was. He had access to the code numbers of the units.

I think I was kind of yellowish, because I remember all these things that we got to eat; it was some kind of a liver ailment or a dull diet. I probably had hepatitis. Then, I remember I was a long time in Warsaw, and I couldn't walk, anyway. Once in a while they tried to stand me up and put me in a shower. It didn't work. The nights were bad, because I had pain in both legs and in the arms, peripheral neuritis, which is also in the books as a late symptomatology of typhus.

The organism of typhus is *Rickettsia prowazeki*. But it is an organism that is egg shaped and about the size of the *poliomyelitis* virus. So it is in the group of largest viruses. Eventually, it was found out that chloramphenicol is the medicine for it, but it hadn't been invented yet.

So, my dad found me in this decent hospital. I remember he stood in the door, then came in with a bunch of dumplings in a sack, and said, "Here." I stuck it under the cover, because it didn't fit my diet.

Also, at that time, I was still lying down, but in a decent hospital—clean. I was awake and was fully there. Then, from Warsaw I went to Meissen in Germany. In Meissen I was in a school, and I was already clear and could eat. They gave us a lot to eat, mostly bread. There was one guy next to me—he ate so much bread. He ate a brick of bread a day, about two pounds. I don't know how it got through, but it did. I could already walk a little at that time in Meissen, and then I transferred to Linz. I was still listed as convalescent. In instances of typhus they figure for treatment and convalescence, I think, three or four months.

RESUMING MEDICAL TRAINING AND MILITARY SERVICE

Then I was discharged from the hospital in late spring 1942, and I had, I think, a three

weeks leave of absence. Then, I had to report to my unit again, which unit wasn't. It was destroyed, ground up.

I remember that in the meantime, the German army had passed a law that all medical students, when they are in a unit out of combat, they have to be sent back to their university for a minimum of one clinical semester. If you had survived in a unit that was destroyed, and you already had a clinical semester, then you had to go back to the university in the area of where you were recruited from. You would still be in the army and would have to go to the university to study until your unit went into combat again.

I qualified as a medical student. The law said that I had to have one clinical semester, in addition to four pre-clinical semesters. So, I went to the medical school in Munich.

"Well, what are we going to do with this guy? Where's he coming from?"

"He comes from unit number so-and-so, that doesn't exist any more."

"What did you do there? It said you were a corpsman, and that you were a radio man, and then a medical student. Oh, medical student. Yes. Goes to the university."

I went to Munich then. I was put into a so-called medical students company, which was housed in barracks. I went to my lectures, and that was about it. The discipline was fairly strict, because if somebody fell out of line, he was stuck in what was called a probation battalion. That had a survival rate much worse than typhus. I didn't like it all that much in Munich, not that I didn't like Munich, although it was getting closer to misery anyway, because there were so many air raids. I was still in Munich when it was attacked once a week or once every other week. After a semester in Munich I was sent to Innsbruck to the medical school there.

Innsbruck, also, was beat up a number of times, and again at one time the railroad areas were hit. At other times, other parts of town were hit. I was at the university then in 1943 at the beginning of the bombing. I was sitting by a microscope, and the *Diener* came and said he was going to lock the microscopes away, because the air raid sirens had been blowing a lot. We didn't want to go. He said, "Out with you. Ordered by the professor, the microscopes are getting locked up." So, there were the two or three of us, and we went down the stairs and then out through the garden. I lived near the anatomy department, and I was not very far away, and I could hear a roar, like water rushing. The bombs were falling. If you don't hear the roar, either it's very far away, or you are dead already. If you hear the roar, you might have a little time to hide out.

The bombs were coming closer and closer. I made it into the nearest house I could reach when the first ones hit. One set went into the anatomy department, just exactly where I had been sitting at the microscope just a few minutes before. I was missed by just a couple hundred feet!

It took about three days until we found the *Diener*, his three children, and his mother. They were on the way into the basement. And of course, with all the rubble that had fallen on them, they were flat like pancakes. And it wouldn't have helped them much getting to the basement anyway, because some bombs got down into the basement. But that was Innsbruck.

By that time I had had five semesters of medical school. The first one was foreshortened, but in order to send the person back to active duty assignment, you had to have one clinical semester, one semester at the bedside. So this was hurried up. I was in a civilian hospital. The training

was university training, and the university at that time stood very much on its own feet. From Innsbruck I had to report to the barracks again. I was sent to southern Yugoslavia, the Kosovo Polje, where they are shooting now in 1999. I was assigned to an army field hospital. I did clinical traumatic stuff. I remember at one time there were some casualties. We were operating on one of them and were bombed! The surgeon was not impressed with the fact that the windows blew out and the racket got closer and closer until plaster started falling from the ceiling, whereupon he said, "I think we cannot go on with this operation, because it gets contaminated."

So then, we carried out the casualties, and everybody went into a foxhole and waited until the airplanes were gone and the shooting had stopped. This hospital in the Kosovo province was somewhat beat up, but still was functional.

After Yugoslavia I was on the border of Macedonia, which at that time was Greece. It was not too far. There were several trips that I made from this hospital to units that were on the Macedonia side. Most of the German army had already retreated out of Greece and held a line in northern Macedonia.

* * * * *

At one point I was sitting in a foxhole tying worms in knots. I dug that foxhole myself, and the dirt was very clayish and hard—the adobe type. As I was digging I noticed that there were holes in this adobe, in this clay. In the holes were angle worms rolled up in bunches. Having nothing else to do after the hole was deep enough, I sat there figuring out how many angle worms I can tie together in an angle worm string. You can only tie two—and that temporarily. By the

time you tied the third one on, number two and number one had pulled apart.

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I had to retreat with the German army from the Balkans. One time at night I fell about ten feet into the river Ibar. The other close call I had was outside Sarajevo. In order to go from Sarajevo north there was a narrow-gauge railroad. Once a week we would send a train full of wounded casualties to the north. These trains were accompanied by an appropriate number of nurses and corpsmen and, if possible, a doctor. When I reported to the railroad transportation officer, he was quite overjoyed that here was a man who was sort of a little doctor. He gave me an assignment to one of these trains. I didn't like that at all. I did try to get out of Sarajevo and north on a regular soldiers' train, which then left the day after the Red Cross train that I was assigned to had left. I saw the remnants of that Red Cross train: it was ambushed, and there were still smoldering things and bloody bandages lying next to the track. The personnel—soldiers, nurses, and corpsmen—were all killed. I would be there six feet underground, if I had been on that train.

AFTER THE WAR

FINDING MY WAY HOME

From Sarajevo I reported to home base, which was near Salzburg in Austria, and then was sent to Italy. It was known at that time—I'm speaking of early April of 1945—that the war was going to be over. I was in a town on the southern slope of the Alps, and so I knew at that time that my chances of getting home were excellent, compared to previous occasions. I was in an army field hospital, and the commanding officer called out all his soldiers and said that it was his opinion that the hostilities would end quite soon, and he was going to give everybody the option what he wanted to do with himself, like the captain does when the ship sinks. He was from what later on became Austria, and so was I, and he took this idea of the captain of a ship quite seriously. He said that he would stay with his men as long as it was a unit. He said he was the commanding officer, so he stayed with the sinking ship. Whoever wanted to go home could go home, and of those who wanted to go home I think there were five medical students.

I was one of them. The commanding officer said, "Yes. There's an automobile leftover that has half a tank full of gas. You can have it." It would be that night or the following night when the five of us started in this automobile north, up into the Alps.

The Allied army was coming closer. It was the American army that was pushing north in Italy. The Adriatic Sea, which wasn't all that far away, was full of American warships. They were just sitting there, but not firing. So, we went over some roads across the southern slopes of the Alps, which are called the Dolomites. Most of us knew those roads anyway, either from hiking or boy scouting or skiing. So, we hardly needed any map at all. Luckily, the gas ran out within good traveling distance of where one of those five medical students lived, near a town called Bozen in Tyrol. So we just left the car there and proceeded to those vineyards where he came from until the American troops overran the area.

There was a short-lived time when an Italian partisan government ruled in this

area, locally here and locally there. These people were not all the most honest groups of entrepreneurs, and they belonged to the Communist Party that killed Mussolini and took whatever he had on him. It was said that it was a high figure of money and other artful belongings. Mussolini—I saw pictures—was hanging upside down from a gallows in Milan, and it never came up whether he was hung there and perhaps then shot, or whether he was shot and then hung, but this did not concern us in Tyrol all that much.

This was what's now Italian Tyrol. Three of the four of us left, and we still had to cross the main chain of the Alps. Unfortunately, it started snowing. We stopped at one of these remote villages of Tyrol, where there was a doctor. It was an old German tradition that if you came as a student to the dwelling, family, or residence of any other academic graduate, whether he was an engineer, a physician, the village priest—who was a theologian—or somebody who was an academic citizen, then you were housed and fed, and they washed your socks, and then you went on again. On the grounds of this old rule, the doctor kept the four of us for a few days until the weather had cleared, and then we made our way over the main ridges of the Alps into that part of Tyrol that became Austria again. It wasn't very easy. As a matter of fact, at that time I was the one with the most alpinistic experience. We had to cross a snowy slope that I thought was going to go down, so I went across it first. It didn't take long before it started to go. I ran about fifty feet over to some kind of a rock while the avalanche made its way downhill without me. I watched the avalanche go down a mile or so, amidst a big noise, and to the great impression of the other three guys who were waiting until I could explain to them now that the show was over—they can do all the walking they want. So that was another

adventure—a narrow escape—or I would have been dug out of the snow the following summer.

We knew that we'd need some kind of snow equipment, and so we got some snowshoes out of some kind of an army depot that wasn't guarded anymore. It was just there, and there wasn't much in the depot anymore.

We had weapons also, because we were determined that at the end of the war it was time for us to go home. Anybody who stands in the way faces the experience of an old infantryman. I brought the rifle that was a ten-shooter. At that time it was an implement that most of the infantrymen tried to get a hold of. It would fire single shots only, but it loaded semi-automatically, put it that way. So, the firing capacity was increased time-wise, and yet you had control over each bullet. You aimed each strike separately. You put in a magazine of ten, and so you had twice as many shells in it as the old *Mauser* had. One of us had a Russian submachine gun. He had a full drum, which is seventy-two rounds, but this was it. There was no more supply. Another guy had a weapon of some kind. Anyway, we were still armed.

So we traveled over the Alps from Bozen to Innsbruck. It takes three days straight if there is no snow, but it took us about two weeks to go, because of the snow. Even as we went along we could see here and there black dots in the snow. Those were guys that didn't make it. A lot of the returning soldiers froze to death.

The only time I saw American soldiers was at one time when we had to cross a bridge over one of those little rivers that in spring become torrents. You always looked, if you got to a bridge, let's say. That's an unwritten law. I could see that one of the farms wasn't very far, but there were some implements flying out of the farmhouse, and shortly

thereafter—I mean, *seconds* thereafter—some soldiers ran out, and I could tell those were German soldiers who were on their way home. In another few seconds, some American soldiers came running after them. I remember distinctly there was no exchange of gunfire. I didn't see the American soldiers catch them. I think they got away.

The first American soldier I got to see and talk to and confront was on the north side of the Alps towards Innsbruck. I had stayed a week or so at a cabin up in the mountains where the farmers bring their cattle up in spring, when the grass comes out. This farmer had fourteen cows, and he was by himself. I don't know how he milked fourteen cows, because even while I helped him, seven cows is plenty. You have to move them out, and you have to look after them, and bring them back in. So, I was there for about a week. At that time, I had gotten rid of my rifle, but I still had an army pistol, which I still have. The other three guys we had dropped off, and they were heading for Vienna. We had been together, myself and the other three. Then, the farmer said, "Now, you . . ." He wanted me to carry some butter and some cheese up the valley to where the farm was where the cows came from originally, where they come from every year. I knew the area already. I'd been skiing there numerous times. So, he gave me a great big basket like they used at that time to carry on the back, and I put everything in, and at the bottom I had some socks, and of course my pistol was at the bottom. Incidentally, at that time I had civilian clothes already. I picked them up along the way. Like this farmer where I was up in the mountains, they all have an extra coat and an extra pair of pants. The weather was not so bad any more. Without skis, I could walk through the snow. I avoided roads, and being on the north side, the main way from that

mountain place to the farm in the valley was really not a road—it was a trail—but it took about six or seven hours to hike. By the time I got down to the farm and was knocking at various doors where that particular farm was, it was curfew, and there came an American soldier, and he talked to me because it was after curfew, so I wasn't supposed to be out of the house anymore. I remember he said to me, "*Du soldat*—soldier?"

I said, "No. No soldier."

So, he repeated his statement several times, and, I finally explained it with the aid of my hands. At that time I could speak some English—more than he spoke German. I told him that, "Be five years moo, moo, moo, moo." And I stank like a stable anyway, because that's where I had spent the last week, in the cow stable. He understood that and believed me.

The locals told me about happenings from there, and they were, of course, very uneasy, "This guy who comes here, how do we know who he is?" (Meaning me.) But since I had a big basket full of what they expected—that was the butter and the cheese—they believed me, that I had a real job to do. I remember, from there I went back over the mountains again, because on the Italian side somebody had given me a goat, and a goat was a very important piece of edible meat, that even walked on its own, was self-transporting. So, I walked back over the snowy mountains to this little farm where I had left this goat, and the goat in the meantime had a kid. So then, I made my way back to Innsbruck again with a double load of meat. And then the goat was consumed, but I was very, very happily received by all my relatives and their friends.

There wasn't much to eat otherwise. I remember that on my way across the now re-establishing Italian border nobody was interested in a fellow with two goats. He belongs here. He comes from here. From

one house, he's going to the other, not over international boundaries. From there, I still had about two hundred and fifty railroad miles to go to Linz, and I covered these hobo fashion, on the train, off the train, on again, except for the leg from Salzburg to Linz, which I hiked, and that's about eighty miles.

It took me two days to do that, because using my feet, which the infantryman does, since I was an unwanted, potentially dangerous beggar, I didn't need much to eat, and I didn't want to sleep in the same place very long either, so it's run, run, run, run all day long. I think it took me two days.

The American soldiers around there were not all one-by-one man on foot. They were not very conspicuous, because they came in multiples and were in automobiles. Nobody would walk, other than the likes of me.

When I came to Linz things didn't look all that shiny. My mother was home, and she didn't know whether I was still alive, or my brother was still alive, but at least one had come home—that was me. There was no way I could have let my mother know I was coming. How do you communicate without a telephone wire and no mail? So, it's just either you are here, or you aren't here.

Linz was pretty well damaged and that's another very interesting story. Linz at that time had been bombed enough to have about sixteen hundred dead, which is the amount of casualties that London had—proportionately. Parts of town were hit pretty hard. Our house was standing, but since a couple of neighbor houses were destroyed, the roof on the house leaked, had lost lots of shingles that had to be replaced, but certainly the roof was still on.

To a certain degree, Linz was a military target, but not a whole lot. The rail station area, I think, was attacked once, and otherwise the city was attacked. Linz had about sixteen

hundred casualties and twelve hundred houses destroyed.

The final story of Linz was that my Uncle Fritz and another distant relative went across the lines as parliamentarians to surrender the city of Linz to the American army. It's like when you come with the white flag. They made it across the lines, and I have the official protocol of that meeting. They were photographed, and then the articles of surrender were typed up. Then, they were sent back to come again the next day, and on that day, there was still some shooting, so they came the day after that. The first idea to come up was that those two guys were spies, and they should be executed, but then, Uncle Fritz talked them out of that and said, "Well, all the houses in Linz have white flags." That was a sign of surrender.

The following day the American troops went into our town without resistance. They went into Linz, and then wrote letters home—and I have seen copies of some of these—that the population of Linz was just exuberant that the American troops came, and they had music and danced in the street until late at night. I knew that those were lies, because the curfew was one o'clock in the afternoon, and if you danced and made music after that, you were shot at.

It was known to the city authorities that Linz was on the block to be eradicated, be destroyed by American airplanes. This was why the city fathers pushed toward surrender. They didn't know who could actually do it, but they knew some would take this trip, and take a white flag and cross the lines. There was no guarantee that they were going to make it. Of course, my uncle, who spoke a number of languages, was at that time the head of a hospital, so the city authorities knew of him and that he could at least talk to the other side. Uncle Fritz agreed to go, and they said, "Yes, you go."

They knew that Linz was on the destruction list, and the confirmation of all that, then, came much later. My father visited me in Reno many years later, and the mailman brought him a letter and said, "You have a letter from Linz."

My father said to him, "Yes. That's where I am from."

He said, "You know, I was a pilot. I was in the air force, and we had orders to bomb Linz—seven hundred airplanes. We were loaded, tanks full of gas, all we needed. We were briefed, who goes at what time, and how much later, and how much it would drop. Then, all of a sudden, the action was canceled."

So, my father grinned and said, "Yes. Know why? Because my brother surrendered the city!"

This was right in early May, just before the surrender of the German army. Certain parts surrendered at different times, but with differences only being days. If I figure this out, seven hundred airplanes in a town of, maybe, a hundred fifty thousand and an unknown number of refugees who are homeless, you can figure on a potential casualty number between fifty thousand and a hundred thousand. So, it would have really been a destruction derby that was planned.

By the time I was back in Linz again, eventually we got word through regular mail from my father, that he was still alive and was in a POW camp between Hamburg and the Danish border, and was under Canadian guard. Apparently, they were treated quite well.

I never was discharged from any army. I felt that if I was enlisted into the German army, the German army would have to discharge me. Since the German army didn't exist anymore, there was nobody there who could discharge me. So therefore, I was never a POW. When I left, as I said, from Italy, there

was some degree of orderly organization of the German army.

Originally, that part of Linz where I lived was United States territory. Now, the Russians were next door. Their lines were at the north Czech border, but they didn't come into Linz until the American troops retreated, which was about three months later. Stalin wanted to have all of Czechoslovakia, which he was promised in Potsdam with these various lengthy war treaties. In order to strategically manipulate that, he had to have all the borders of Czechoslovakia in his hands. Part of the border was still in U.S. hands. So the U.S. army retreated and handed that territory over to the Russians. This was where our home was—in the Russian zone.

There's one incident that concerned me and my family quite a bit. There was a man who went to the Austrian authorities, the new Austrian authorities, and said that my father, who was now a POW, was a very bad, high-ranking Nazi, and had done all kinds of gruesome things that were published in newspapers, and he should be condemned and arrested when he comes home, executed and whatever else they had in mind. A school teacher with the name of Kastinger, who was a registered Communist and an idealist, heard about that, so he went to the Russian authorities with his party card, identified himself as a freedom fighter for the world's revolution. The idea of the world's revolution still held quite a bit of validity at that time. He said to the Russian commandant that this Rosenauer that the locals want to condemn and eliminate, is an honest man. "As a matter of fact, he probably saved my life at one of the Communist civil war episodes that Austria had in the 1920s, where I was to be executed."

So the net result, then, was that the Russian military command told the Austrian authorities to keep their fingers away from

this Rosenauer. They also told us who the informer was, and he was not the most productive and respected citizen. Then my father came home. It would be about late 1945.

I had a number of papers, and they mostly jived. For instance, when I wanted to re-establish my connections with the University of Innsbruck, I had to progress from the American Occupation Zone of Austria into the French Occupation Zone of Austria. The American side issued a white personality paper, and the French paper was blue. In order to go from one side to the other, you had to go through all kinds of applications and submit to questions like we do now, when we want to join an HMO—a lot of paperwork. I could see that by the time I would get to Innsbruck I would be up to graduate. So, I just went by train to Salzburg, and west of Salzburg was the United States-French border. Then, I started hiking. I remember a jeep appeared, and I could see the canvas roof. So, from my direction, I made a 180 degree turn—I went back. So the jeep came, and the soldier in there said, “Passport.” So, I showed him the French passport, the blue passport. But I was heading for the American side. So, the soldier said, “You’re wrong. You go back to the French, where you got your blue passport.”

So, I said, “Yes, sir.” Made another 180 degree turn and proceeded on my course towards Innsbruck. These are little tricks you learn in the infantry.

FINISHING MEDICAL SCHOOL

In the meantime, the university opened. They put together loose ends with what they could and as much as they could, and that included window putty for the windows that were bombed out. Things worked and went into one direction, and the university started a regular teaching program for the winter

semester of 1945-1946. The university had not cleared all the hurdles, by no means, because according to the system of government that the Allied Council in Vienna established, the governing had to be done proportionately, one with American representatives, one with British representatives, one for Russian, one for French. Of the Austrian cabinet members, they also had to be portioned out. But there was the cabinet member of education, who had all the schools under his jurisdiction, and that according to the system of the proportions. And they called it the safe proportions. (Proport is like proportion. I just leave the tail end off.) So that man was a Communist. The design of the Russians was to get all higher education under their thumb, which meant that the university in Graz and the one in Innsbruck, one in the British zone, one in the French zone—they had to be closed, so that there was only one university left, Vienna, which was in Russian territory.

Unfortunately, at that time, the British high commissioner and the French high commissioner had no interest in anything. They were militarists. Later on, this changed, but at that time it was just strictly military dominance, so the Russians pursued this scheme by denouncing various professors as being very bad Nazis and all the terrible things that they had done, anything from killing six million Jews to taking their skin off and selling it for lamp shades. The most grotesque things were in the newspapers then. The idea was then that if we closed so many departments of the university by taking the professors into custody and putting them into a concentration camp, then the instruction density would fall below the prescribed minimum, and that would close the university.

In Innsbruck, there were two men, and one of them was the dean of the medical school. I was instructor then, and he was

professor of anatomy, so he was my superior, so to speak, and he smelled this rat in time. He had a friend in his student fraternity, who was in the local government in Tyrol, and that guy also smelled the rat. Those two managed to forestall all efforts that came out of Vienna that were going in that direction, before they could be implemented as a directive from Vienna. They had already brought up the real cost of this implementation, and they had the university behind them. I was the highest graduate around, but my degree was not sent to Vienna for signature; the president of the local government in Innsbruck signed it, because they *knew*, if any distinction, honor, or outstanding act would come out of the university that they wanted to close, they would forestall it. This I also found out later. It was all in the underlying obstacles which almost came to a closure of the university of Innsbruck.

This series of events occurred 1945 to 1947, after I got home. In 1945, the winter semester, I was in Innsbruck already. This is where I needed to turn around before the Jeep to make a turn to Innsbruck, physically. The war was over already. Shooting was over. All Tyrol had already changed from American hands into French hands, from Patton to DeGaulle.

I was instructor in anatomy. An instructor is not a paid employee, but I actually instructed in formal anatomy classes. What was lacking sorely was the dissection—for several reasons. Number one, the part of the building that was generally the dissection hall was damaged. The other thing was that the former professor of anatomy at the end of the war—or at the beginning of peace—was to be arrested, because in his log he had two or three POWs that had died, and they came to the anatomy lab for dissection. The university had made some inquiries, whether

there's any relatives, but how in the hell do you make inquiries for relatives in the USSR? So, the occupation commander sent his police, his soldiers, dragoons, or what not, to arrest the old professor of anatomy—the former dean in that period. And he said, “Well, what do I do in this instance?” Number one, Empress Maria Theresa, who ruled a little before George Washington, wanted to control epidemics that constantly came up the Danube. They really were bad epidemics in her realm, so she passed very modern public health laws. If a body was not identified or not claimed, or no relatives were found, it went to the anatomy for instruction.

There were, I think, six POWs. So, then came the new professor of anatomy, who had been arrested and investigated once under Hitler. Nothing was done to him. I think he belonged to a paramilitary organization. He went to the French and said that this is what holds water here since Maria Theresa, and an investigation was made for relatives, and we are a totally unmilitary institution. We have no ways of burying a POW with military honors, which they wanted. They had to listen to him, because he had what we called a “hunting license”—he was a victim of Hitler. He wasn't much of a victim, but he was classified as such. So, they did not arrest the old professor, but they insisted on burial of the remains with military honors.

I remember the professor coming and saying, “What are we going to do for the remains?” Well, they emptied all the bins where the dissection residue was to be burned and put them into coffins. Then came a couple of drunks, and they picked up these coffins, carried them out to the street, over to the cemetery, which isn't very far from the anatomy, and buried them there. There was no French soldier involved at all. It was just a couple of local dummies they got off

the street. So that settled the attacks on the anatomy department—that had started with bombs. The culprit under these circumstances is best described in Goethe's *Faust*, where it says, "The greatest crook in the country is the informer." I still think so. He starts all that. Well, anyway.

The war ended in 1945, and I was at Innsbruck in 1946 and 1947. I graduated with my M.D. in December 1947. The general area that included Austria had a rule in the universities that he who has served a minimum of two years in the war was allowed to condense certain lectures to get credit for a whole semester, so that instead of completing ten semesters, and these two years that he had lost, he could complete nine semesters, and then apply for examination terms. This thing arithmetically escalated, because if you had four years of military service you could apply for a whole year's worth of free semesters' compensation. If you had six years, another semester. There were guys who had eight. They were in the Austrian army first for two years, and then they got into the war, and then they didn't come home until five years after the war. So, they already declared they didn't have to go to school at all. It was a kind of a joke amongst the students, because one semester was the maximum that you could cram into your head no matter how many years you had lost.

So, I graduated at the end of December, 1947. I had 1946 and 1947 and one semester of 1945—five semesters already. Four semesters during the war, one semester before the war, made five. And then, in two and a half years that would also mean the five semesters, so I wound up with ten semesters. Then I'm almost finished.

Senior year the curriculum was mostly clinical. I remember that. One course was what they called pathological anatomy

(pathology). Then, there was a course that was called topographic anatomy, which was, in the essence, preparing the student for surgery. You were expected to know your anatomy, and this consisted of what layers do you have to go through to get from here to there. It was a clinical course. We had a big outpatient clinic.

My appointment with the university remained that of instructor in anatomy up to the graduation, so I had my time to complete, let's say, running the dissection courses and then doing the clinical work. The clinical work was physically in different departments, different buildings, and those were all clinical fields and specialty fields. For me, there was also the distinction of being an instructor.

At graduation I was awarded a special ring for achievement in my whole educational career. It is an open competition, and you have to be a grade school straight-A student from the day you enter grade school. You have to be equally at that point all throughout the grammar school—eight years—and then you have to do all your eighteen examinations in medicine all with straight A's. Then you are eligible for this fancy ring. It was called *Sub auspiciis imperatoris*, "Under the auspices of the emperor." Then, they called it *Sub auspiciis Austriae*, "Under the auspices of Austria." I think, now they call it *Sub auspiciis Præsidentis*. It was started by Franz Josef, the Hapsburger. He would invite one student who fulfilled these criteria for an audience to Vienna. After the monarchy was abolished this custom died. And in 1947 it was revived! I was the first one to get this new ring.

When I graduated I was earmarked already and offered the position of an assistant professor in anatomy. I stayed in the anatomy department through the end of the semester, because my idea was to go into surgery presently, which then would require that I vacate the possibility of becoming an anatomy

teacher, career-wise. Then, I left Innsbruck in the spring of 1948, at the end of the winter semester. I went to Linz and started a rotating internship in various hospitals in Linz for the whole year of 1949.

I had to have so much internal medicine and so much psychiatry and so much dermatology, and at that time, of course, obstetrics, because one of the basics for the graduating physician was that he can deliver a baby, give an anaesthetic, and pull a tooth! If I think back on my teeth-pulling endeavors—ooh, terrible. It was disastrous.

Eventually, I got based in the hospital in Linz, where my Uncle Fritz, whom we were talking about already, was the chief surgeon. Of course, he wasn't really the chief surgeon, because the chief surgeon was a Dr. Zwalsch, Captain, United States Army Medical Corps. Zwalsch came to Linz in 1945, when this hospital where I later on did most of my surgical training was still full of casualties. It was after it was bombed. Then, this corridor is for the triple amputees, and that's for the double amputees, and that's for the single amputees, and that's for this injury. Simply put, there was trauma in that hospital.

So, came Dr. Zwalsch and talked to my Uncle Fritz, and from the very beginning the two of them understood each other perfectly. Zwalsch said, "Look, Fritz, I cannot run this hospital. I have no experience with that. I need you for that. Once a day or twice a week or twice a day, we get together, and you tell me what's to be done, and we work it out. I sign the papers."

One of the silent agreements was my internship! No more questions asked, because, theoretically, I was never discharged from the German army, which, of course, since agreements existed to that degree, wasn't a big problem at that time. These agreements reached even farther at one time. My Uncle

Fritz had to do a lot of rehabilitation of mangled joints and mangled extremities. He had a man with the name of Ruckerbauer. Ruckerbauer was the plasterer, the cast man, and he was a master in that respect. He was a wizard with the plaster cast. This extremity or that extremity which he treated—he did this with the touch of an artist. I knew him, and I watched him, and I learned from him.

They found out—Zwalsch and my Uncle Fritz—that the University of Munich was so far ahead of us in Linz. So, they got to go to Munich. Zwalsch and my Uncle Fritz put a big box into Zwalsch's Jeep, and Ruckerbauer got into the box. My uncle sat next to Zwalsch, who drove the Jeep up to the German border. He went to the American army command and told them that he wanted to go to Munich for such-and-such a reason, and he said, "This fellow next to me runs the hospital for me. I need him to see what's what and show me around up there."

So, then they went across the border, and the American officer gave my Uncle Fritz a sort of certificate, like a mini passport. It was what the locals used to get across a river from the Austrian to the German side. Uncle Fritz said that he lived in that town, and the officer said you can go across the bridge over the river. They drove down to the bridge, and here was the guard standing there. Zwalsch showed him the papers, and they drove on a mile or two. Then they opened the box and let Ruckerbauer out. They went to Munich, and Ruckerbauer stayed there for six weeks learning what he could. Then, the whole caravan came back and picked him up—same trick—stuck him in the box and brought him home.

So, the local situation had adjusted to, quote, "necessities." There were other learning experiences as well, when I was in the department of skin diseases and venereal

diseases during my internship. This was one discipline at that time. The American army allotted a certain amount of penicillin to treat gonorrhea in civilians. The idea was not to sell it off on the black market—which probably was done, too—but also to keep the reinfection of American soldiers at the lowest level possible. So, I was the one who had to keep a book where all the infected females were listed: when and how much of a penicillin shot they got, and under what circumstances. They were coded. So of course, I doled out the shots, too. I would walk down the street, and here's the mayor's daughter, "Good morning. Good morning. Good morning." I could think to myself, "I know you, too. I have you on my list." Well, it provided some kind of an amusement.

Originally, the health situation in Linz was awful, because there was one problem: the supply of water was intermittent. So people filled buckets and bathtubs, to have something for tomorrow, in case the water gives out. They had in 1945 an epidemic of typhoid fever that was devastating. There were all kinds of refugees, and the health control of these was marginal anyway.

Then, near Linz was a big concentration camp, called Mauthausen, formerly a rocket factory. There was a big number of debilitated prisoners, starving and medical care nil, but slightly less than what nil was in the civilian population. So the American army arrested people, mostly women, carted them there to Mauthausen, to that hospital, and had them do nurse's services, and then carted them home again. My mother was arrested several times and brought to Mauthausen, and it may have been due to the fact that in the First World War she was a nurse. These women didn't know what was going to happen to them. They were just shut up in the truck, and off. They didn't know whether they were going

to be raped or shot, or only shot, or what. Of course, they were all brought back. With them came typhoid, and no health provisions. Then, the epidemic spread, and how. The Russians came three months later; they brought a good amount of this epidemic under some control.

I stayed at home until the Russians came. I didn't trust them, so I moved over to the American side of town with some friends and lived there, but every so often, I would want to go home, or needed to. The Russian passport was red. The American was white. So, I had a red and a white. That takes us right back to what we were talking about already. I had a red one, and I had a white one. Every so often, for one reason or the other, the bridge would be closed, and they wouldn't let anybody across. And at one time, I wanted to cross the bridge, and the bridge was closed for some reason or other, so I went to the side of town, where I originally came from. It has the name, *Urfahr*, which is a Germanic word, which means "over fare," where you ferry over the river. I just added on my Russian passport in Cyrillian—I know most of the Cyrillian script—that I lived in *Urfahr*, and showed it to the guard. He let me go.

Other people came with their American passport, the white paper. "No. Go home." So, this now goes under different types of identifications that I had. In retrospect, I took a big risk, because, suppose that guy is literate and can see that this Cyrillian script is lousy, because he had no idea that I could read that, or that I'd written it.

Before long, there were papers on the walls that all German army soldiers, former German army soldiers, had to get their discharge papers counter-stamped. Well, this was for me, for an old infantryman, a warning to act, and of course, psst, I was gone. First of all, I didn't have any discharge papers to begin with, but even then, I could have had

fifteen, but I wouldn't have gone there. There were some blockheads who did! I had enough service in the infantry to know that that thing stinks. And it *stank*!

The Russians had made an office in the courtyard of the grade school. Here came these guys with their discharge papers, so, and did what they were told, "You go over there." And they go over there, and when a truckful was completed, they put them in the truck and carried them to Russia for five years, yes, to do shoveling. I think the casualty rate was about like the Death March of Bataan—about 20 percent. Now, if those would be Jews, they would sue for slave labor, but the Austrian soldiers hadn't thought it would make any difference.

We heard the last came back in 1955. I found out later . . . in fact, I have the protocols of the Conference of Potsdam, signed by Harry Truman, and the basis for that was that "reparations may be collected in manpower." That's the way they worded it, the big shots. So they collected the manpower. I remember one person, who later on came back, and I knew him then as an anaesthetist. He and his brother were stupid enough to go on the trucks. His brother was an enterprising soul, and he jumped off the truck where they slowed for a turn in the road. The Russian word for guard is *convoy*. And the *convoy* saw his brother and shot him by the wayside. Well, this is an axiom: don't run, when you are nominally a prisoner.

COMING TO THE UNITED STATES

RESEARCH AND TRAINING IN CINCINNATI

Then came a period where I had developed some possibilities for a year of study in this country, the United States of America. This came about because the then professor of neurosurgery, Dr. Joseph Evans, had a histologist named Dr. Scheinker, a man supposedly trained in neurohistology and microscopic anatomy, who gave himself the air of knowing it all, because he had spent a year with Roessle in Berlin. Roessle had developed the theory of general inflammation and the sequence of how it occurs.

Dr. Scheinker left Berlin and came to Cincinnati and got into this research project on head injuries and brain swelling and trauma in the head. When they were still in the animal experimental stage, he would decide whether there was brain swelling or not, which was a very crucial decision to make. About then, the research project got a different director, and different monkeys. He mixed the monkeys up. Then, one time the new project director came to the chairman of

the department and said that Dr. Scheinker was not a critical observer. Here, twenty-five monkeys were rapped on the head, and twenty-five monkeys were not rapped on the head. All were then sacrificed. The distribution of brain swelling or not was independent of whether the monkey got a head injury or not! This means that the judgment has as many positives and deviations, and as many positive falses as negative falses, and it's to be discarded. It didn't make any difference whether the monkey was banged on the head or not. So Scheinker's results were discarded, and so was Scheinker. They needed me in his place.

When Dr. Joseph Evans, the professor of neurosurgery in Cincinnati, became a committee member of the World Health Organization he toured the world to see whether there are so many cadavers that we have to fear a global epidemic, and for one reason or the other, stopped in Innsbruck and talked to the then professor of anatomy and told him that he had to make these changes in the program. The professor, my boss, said,

“You know, we have a man who is interested in microscopic anatomy of the nervous system. There’s one here. His name is Adolf Rosenauer.” And still, I knew nothing about that until later on when a correspondence developed with a person named Franz Halberg who had been in Innsbruck and at that time was in Boston. He’s retired now. He was the man who documented the diurnal biorhythm.

So, Halberg and Joe Evans knew each other, but I only knew Halberg. Evans and Halberg originated an exchange of letters, which eventually led to a man coming to the University of Innsbruck, and he had to trod up the back stairs, because the front stairs where I was years ago, trying to sit at the microscope, were gone. So, this man was a short fellow and had a blue Basque beret on, and I opened the door, and he spoke to me in English, but I could tell English was not his strong suit. He had a French accent. He identified himself, and announced that he’s here to speak to the professor, chairman of the department, so I let him in. Five minutes later, up comes the professor and says, “Number one, I can’t talk to this guy. And number two, he said he doesn’t want me, anyway. He wants you!”

“Me? All right.” So, I got into the lab and library and office and everything all at once. I learned that this man was a French Canadian and therefore spoke French better than English. So, the conversation changed to French.

Number three, he was a representative of the Rockefeller Foundation and said, “I want to talk to you, Dr. Rosenauer, because we are considering sending you to Cincinnati for a year.” That’s where my contact started.

I think they had six candidates in Austria, and I was the chosen one. Eventually, I got this letter from the Rockefeller office in New York City, “Such are our conditions, and these are

our goals We are interested in sponsoring this project in Cincinnati,” and on for another two or three pages, “and we would like you to join this team.”

I knew at that time that if I wanted to make any career in Austria, I had to have a year abroad. It wasn’t just in 1950. It has been that way all the time—fifty years ago and a hundred years ago. At that time “abroad” meant the U.S., but it wasn’t always so. At one time, for my uncle, it was Egypt. You had to have looked over the fence, so this just suited me fine.

They also had the condition that the university where you came from originally had to keep a teaching position open for you to transmit the wisdom that you have imbibed abroad. So, I had to go to Innsbruck, and I showed them that, and it wasn’t difficult in any way, because the anatomy professor, my former boss, knew about it from the time that this Canadian had appeared. So, they said, “Yes, we’ll do that. We agree.” By this time, I had finished my intern years, and I had already gotten into a surgery residency.

So, in 1951 I came to New York and took the railroad the rest of the way to Cincinnati. I joined a team of physicians and auxiliary scientists at the University of Cincinnati. The topic of the research was directed toward fluid dynamics in the head and resulting tissue responses as, for example, the spinal fluid pressure. I had already had some neurosurgery training in Austria, and I had published several papers on the histology of the sympathetic nervous system, but I had not done any of the fluid dynamics. It was all brand new to everybody at that time. There were some isolated workers’ papers on spinal fluid pressure, which, to a certain degree served as a basic profile, but the interdependence of blood flow and spinal fluid circulation was not well known.

The head of the department was Joseph Evans. Another man that I worked with was Henry Ryder. Then, there were three research fellows, including me. Finally, the associate professor was Frederick Vatnar Kristofferson, who was from Iceland. I think he was also a Rockefeller-associated individual. Then there was a man with the name of Boris Podolsky, and he was a Russian physicist. He worked for us, because he did the mathematics part for the figures collected clinically by the personnel listed above.

Podolsky could operate, and had authority to operate, a computer, of which there was *one* in the state of Ohio, located at the U.S. Air Force base in Dayton. It was about as big as a barn. I spoke to Podolsky quite often. To extract the answers out of our pressure readings and flow readings that we collected on one patient would take about eighty hours of calculation with paper and pencil. Podolsky took the week's supply of data, of which there were four or five sets, to Dayton. He would drive the sixty miles from Cincinnati up to Dayton on Friday and then come back on Sunday with all the calculating done. But the majority of the time, he had to spend programming this gigantic machine, and once that was done, our data supply could be completed over the weekend.

The project was all people—no animals. The object was to work out the best interrelations between the component readings there were, such as venous pressure in the head and spinal fluid pressure. That's very simple. Arterial influx to the head and spinal fluid pressure—this was not all that simple. It turned out that that particular part was mainly the computer's problem, because it would include finding an understandable proportion that best fit the whole array of coordinates collected. It turned out that this was a conic—in some instances a parabola

and in other instances a hyperbola. Podolsky first had to find out whether any one of these proportions could be made to fit any one of these conics. If there was a likelihood that it could be done, then do it either for all parabolas possible or for all the hyperbolas possible. The computer was very busy. We did between three hundred and four hundred experiments. Out of it came the one and only such series of proven interdependencies in the human. Before that, it hadn't been done, and afterwards in our current situation of defensive medicine, it would be totally swamped and unthinkable. The program would be, probably, destroyed by the judiciary. The University of Cincinnati would be owned by the lawyers by now. But at that time, the predicaments were much more honest.

All members who were clinically employed went through this complicated procedure of varying the spinal fluid pressure by injecting water, and at the same time recording the arterial pressure in the brachial artery and the venous pressure in the jugular, near the base of the skull. The professor went first, and then, all the rest of us. We were the guinea pigs, ourselves. First, it had to be proven that it can be done, and is a reasonable demand on the patient. Then, the project could start on patients. Afterwards the predicaments of U.S. medicine changed, so that it would be not feasible now anymore.

Then we worked on patients. It has to do with the fact that the spinal fluid pressure at that time was a very important feature of abnormality in the brain, be it hydrocephalus, a head injury with intracranial hematoma, or a space-occupying lesion. So, you always had to have several spinal fluid readings to confirm or make your clinical diagnosis. We don't do that anymore now at all. The blood flow to the head, also, was of rather primary importance to assess abnormal conditions in

the head, so part of all this groundwork had to be done and was routinely done on every sick case, or on any case of similar sickness. The extension of it into a research project was one that required the fundamental notion—sort of a golden rule of human research—you cannot do to anybody else unless you want to do it to yourself first. It had to be proven that this was not a dangerous procedure at all. We all lived through it.

This was a seminal study. At that time we had very few localizing procedures that would reflect conditions in the head, and they themselves were quite often dangerous. Now, we have methods that localize lesions better and with considerably less interference with the patient's health, at all. Now, we use either gamma rays or the magnetic fields or radioactive substances. At that time there were substances evolved which were available for arteriography. One was thorotrast, which eventually was found out to have a tendency to produce cancers in the liver. Then, there was another substance which contained iodine and which was injected intra-arterially, and that was, in a significant number of instances quite toxic, but it was the only one on the market.

This was a full-time project during the day, and, since the University of Cincinnati had the neurosurgery department there, we had a lot of patients coming in at night—mostly from accidents and violence—and we wanted those prepared for possible studies for the next day, which required me to work on the clinical service at night as much as possible, and then full time on the research project during the day. I was chronically tired.

That went on for one year, and then it was decided not to terminate the project, because quite a number of factors were still unresolved. So, the university approached the Immigration Department to extend my

stay under the current conditions, which they agreed to do, since I had a one year's visa. At this time they asked the Rockefeller Foundation to delay my promised return to Innsbruck, which they agreed to, and just kept my return ticket open. I stayed on for another year with the same project, after which this study was terminated. Also, while at the University of Cincinnati I took a degree of Masters of Science in Surgery.

In 1952 I went back to Innsbruck to fulfill my agreement with the Rockefellers. As it turned out, this was not feasible. The person who was head of the department of neurology and neurosurgery and psychiatry—his name was Urban—was not a man of good judgment, and, as it turned out, he wasn't honest, either. In 1938, before Austria and Germany were united, Urban had applied for tenure, and the senate of the University of Innsbruck at that time would not give it to him, because they felt that there was a certain lack of straight thinking, incompatible with regular teaching. So, Urban left Innsbruck and spent World War II in various places in Oslo, Norway, and San Francisco, and South America in academic institutions, and came back later. Instead of going to the University of Innsbruck, he went to the four Allied occupation generals in Vienna and said that these were the bad Nazis in Innsbruck that did not give him tenure. Soon, the order came from Vienna that that man must be given tenure, and so it was.

This did not please the senate of the University of Innsbruck at all. First of all, they had already made their decision based on good grounds, and second, they saw that the man wasn't honest. They were tearing their hair out and said, "We cannot do anything about it. Those four generals—they tell us what to do." So, Urban held the sway over his department until ten years later when the occupation troops left, and then he left with them.

He could not hold any trained neurosurgeon in his department. He had two or three of them that came, and after a semester they were gone, because he was incompatible. He was impossible to work with, and I could bring up some of my personal contacts, who would confirm that. I did mention those experiences in the office of the Rockefeller Foundation in New York City, where I stopped after I had left Innsbruck, and I asked for a revision of my agreement with the University of Innsbruck. The secretary of the department said that he would investigate this matter, after which I traveled on to Cincinnati to take another year of residency in neurological surgery in 1953.

The foundation sent the secretary, then, to Cincinnati and asked for me at the university. He told me that they had investigated this matter, and they would cancel their obligation to me, and I could cancel my obligation to Innsbruck, and I could do what I want, which means that I put in another residency year in Cincinnati at the university. In addition, I rotated through various other hospitals. Joe Evans held the professorship at the university hospitals, and then there were two or three other hospitals where I spent several months each. So that filled up the residency for a year. It was a regular neurosurgical residency.

RESIDENCY IN CHICAGO

I then went back to Europe on my own and picked up the end of my already started surgical residency again, because Evans, still professor in Cincinnati, had told me when I left that he would leave Cincinnati and take the chair of neurosurgery at the University of Chicago. He made it a point, a condition to take the chair, that he could pick his assistants the way he wanted. The University of Chicago agreed to that and said, "From wherever in the

world you want them, they will be welcome." So, when the good Professor Evans went to Chicago, he called one Irishman—John Mullen, who followed in Evans's footsteps when he retired—and me. You always need two crown princes. Evans asked me before I left to go to Europe whether I would be willing to come back to Chicago.

I said, "I couldn't tell right now."

Evans said, "I can give you credit for neurosurgical residency," not only for the year of straight neurosurgical residency, but also for the two Rockefeller years I had in Cincinnati.

After I had been in Austria, it didn't take long until the letter came from Chicago whether I would go to the University of Chicago, and I answered, "Yes."

In Linz I was just doing general surgery. Since I already had the option to go to the University of Chicago, although not documented yet, my plans were already going in that direction. I was already planning to stay in the U.S. I had contacted and visited the respective medical authorities in Austria to ask whether I could have my years at the University of Cincinnati included in the seven years requirement of surgical training for the specialty of general surgery in Austria. To my chagrin the answer was no. They would not give me credit for it. So, that directed my ideas even more to Chicago, where I had the promise of three years of residency to be credited and the position of instructor.

The second time I came to the U.S., I came back directly to Chicago, and just Chicago, as neurosurgical resident—clinical and instructor—no research projects.

There were some difficulties I had, because I had learned English in school. Then, I had been in Great Britain a couple of times, and I would have some minor correspondence, but Cincinnati is on the Ohio River, and south

of the Ohio there are a lot of folks which we classify as hillbillies, and their dialect was significantly different from high English. In addition to that, Cincinnati had a sizeable colored population, all immigrants from southernmost states, and their dialect is still different from that of the hillbillies, so I had to ask many questions over again, and I had to resort to ideas. For example, in order to be able to tell one patient from the other, when I wasn't quite sure whether I understood him right, I resorted to painting neurological deficits on the skin with the pencil. I knew that one had a numb left leg, and the other one had a numb right leg, even though I wasn't quite sure whether I understood them one hundred percent.

The secretary of this department, who had equal difficulties with various residents and different accents—I had a silent agreement with her. She would transcribe my dictation on a wax cylinder type of machine. I would reread it and correct it and improve it, and then she would type it over again, so that some decent English got on the charts. The adaptation to a different language, particularly one that's not as much different as English and German, when there is any basic training before, it doesn't take very long. In two months you're very good.

I was chief resident at Billings Hospital. Now, to the places where we worked, for instance, the pediatric cases were not at Billings Hospital, but were at Holmes Hospital, which was within walking distance. Most cases of malignancies were in another complex, which was called the Argonne—after the forest in France—Argonne Research Institute, and there were different departments again. One was exclusively for radiation, and the other one not for radiation, but they were all grouped around Billings Hospital.

The department was not very big. There were, possibly, two residents a year. And in addition to that, there came the physician-in-training who rotated for a month at a time, minimum, through neurological surgery. This would be a surgical resident who had to pick up some training in neurosurgery.

* * * * *

On my second trip back to Europe I met my future wife, Eva Moore. Here's the story. For entertainment on this boat trip, we invented "turtle races," which may remind you in some ways of Mark Twain's story, *Celebrated Jumping Frog of Calaveras County*. I had brought with me about a half dozen small green turtles (*Cheilonis Troostii*), as they abound in the waters of the Midwest, because I wanted to know whether they could survive in Austria north of the Alps. The ship's bar had numerous tables with glass tops, and one of them was furnished with a start line and a finish line. We lined up the six turtles behind the start line. There was always one turtle who quite suddenly started moving frantically in one direction or the other, to great acclamation from the players—until it was found out that I had been heating up the glass top from underneath with matches. Eva Moore was amongst the onlookers. As she watched the proceedings, I would suspect that she might have had one of two thought patterns: a) This guy is a kook, and I should run away pronto. b) This guy is slightly kooky, but looks like a real live wire. I should get to know him better. Well, she didn't run away, and here we are forty-five years later.

We were married in Europe, and when I came to the University of Chicago, she came from Portland, and we had our first child in

Chicago. Eva did not work. She had to do with the baby.

In Chicago, we lived in what's called a studio apartment, and then, I could move into university housing, which was donated to the university by the Defense Department and was rented for a dollar a year per unit. These were former army barracks, and the proviso was that it was limited to veterans. So, I was asked whether I was a veteran on the questionnaire, which I dutifully wrote down, "Yes."

"What branch?"

"Army."

And that was all they asked for. They didn't ask me what side I was on. But there was some question of a similar thing later—I don't know when that came up—which side I was on. So I told them in this room, where other people sat in some kind of a committee or something, I probably was the only one here who fought against Stalin. All the others, "You guys, you supported him."

In Chicago I was a paid resident. I had already a salaried position—two hundred dollars a month. I didn't jump very far with two hundred dollars a month for three people, but nonetheless, it was a steady income. I was two years as chief resident.

At big universities, there are always colleagues coming who need associates, and they ask whether there are any residents looking for a job. I became involved with this, because I decided that I wasn't going to stay in Chicago, for the reasons of Chicago, not for the reasons of what intellectually was offered there. The city of Chicago in its southern extension was not very desirable. When the sun went down it was like a city under siege. That was "curfew or else."

If I would have shown interest to stay on, I'm quite sure that something would have

been found, but I wasn't interested in that big city. The idea of bringing up a family in surroundings like those around the University of Chicago—that just didn't appeal to me at all.

Another reason why I didn't care for the Middle West is because I had acquired a sensitivity to a plant called ragweed. I'm not just talking of coughing and spitting; I'm talking about the eyes swollen mostly shut and asthma, so it did interfere with my work.

Since moving to Reno, I haven't been in the Middle West at ragweed season that I remember, which is from August to the first frost, but it took a year to have the same thing crop up on me here in Reno, because the sagebrush and the ragweed are sufficiently close relatives, so that if you get trouble with one, you get trouble with the other. Luckily for me, the sagebrush is not as bad as the ragweed. I'm not desperate. It isn't really all that bad.

GETTING A MEDICAL LICENSE IN NEVADA

The job offers I remember were Spokane; Charleston, South Carolina; Kansas City; and Morgantown, West Virginia. It was beyond my possibilities to visit each place to see if I wanted to live there, but I picked Reno, simply because the state licensure laws in Nevada were the least complicated at that time. The others were much more involved. South Carolina would require me to go back to medical school and start over again, so it would require a fair amount of time. That's why I picked Reno.

To get started in Reno first required me to apply for a license to practice medicine in the state of Nevada. So I presented myself to the Board of Medical Examiners. Their president, Dr. Kenneth Maclean, said to me after we had become acquainted over the conference table,

“Now, we know about you. We have done our research on your training. We know what your capacities are. We know how long you have been here. There isn’t any ground that hasn’t been covered. We will issue you a license to practice medicine in Nevada. Welcome here.” He signed the paper and gave it to me.

A week later the president of the Board of Examiners, Dr. Maclean, got a hold of me and said, “You have to give me that paper back. For legal reasons,” he said, “I can’t license you. We might not state what this is all about right now, but you will understand in the very near future.”

“Could I take the examination of the Nevada State Board of Medical Examiners?”

And Kenny (Dr. Maclean) said, “Yes.”

“When? This afternoon? Doesn’t make any difference, because I have been in academic medicine; I trained students; I’ve examined students,” since this had been my occupation for four years, anyway.

Eventually, I ended up taking the Nevada State Board of Medicine exam, starting from botany and chemistry and physics all over to the last clinical subjects, essentially the same that I had taken in Austria. I also have a degree from Cincinnati, a masters degree in surgery, which was not as complicated. Interestingly enough, it had English literature as part of the examination.

However, the state of Nevada at that time had come around to require that the man who wants to practice medicine here at least must be a citizen of the country. So, I went to the immigration office and told them what my problem was. I couldn’t get naturalized even though I had been here, most of the time, for five, six years. I knew that there were papers which were called the “The First Intention of Immigration,” which at that time had just been discontinued. They said, “Well, it looks good. I don’t think you have any difficulties,

but this is election year and we will not have any naturalizations.”

All right. So later on, I was told why. There was the eminent senator and father of the country, Patrick McCarran, and when he was elected, it turned out later that more votes were cast than citizens were in Nevada. It was also noted that a lot of tourists from Mexico had come into Las Vegas and had left the same day, I was told.

That was all total hearsay. And like . . . just for the day of election. So then, the country fathers decided that there will be no more naturalizations on election year, and they also told me that one of the first who stood up and said he was for the law was the newly elected Senator Patrick McCarran. That’s where my intelligence stopped. Pat McCarran was the one who, in order to boost the sheepherding industry, encouraged the immigration of Basques in Nevada—but not neurosurgeons from Austria.

In 1957 I came here from the University of Chicago. I think the election year was 1958. So, I had to ask for new terms for the various basic science exams and the various state clinical exams for the state boards until I had my naturalization papers. Eventually, I got these, and then I turned out to be one of the very few physicians in Nevada who actually took the Nevada State Board of Medicine examination for the licensure of medicine, because most of my other physician colleagues, since we didn’t have a medical school here, came by reciprocity. Walter Quinn was about the only person I have met who actually took a Nevada State Medical Exam.

All the time I was in Chicago I was on some kind of visa. First, I was on the visitor’s visa. I don’t know what kind of a visa I had after that, but the classification was “temporary” or something like that. I was not naturalized yet, but I was on a visa, a permit—a revokable,

temporary permit. My own mistake. It was pilot error; it was my own mistake, because I could have done all this naturalization process while I was at the University of Chicago, because maybe they don't have these election-year provisos anywhere else, or at least, probably not in Cincinnati.

So, I came to Reno in July of 1957. At that time I had an automobile already, which made it to Reno. The precision of my timing had to be extraordinary. The Washoe Medical Center at that time had just started an electroencephalography lab. They either had not been very happy with the technician who ran it, or he left. Anyway, they did need that lab run. Since I had one or two formal semesters of electroencephalography at the University of Chicago, they said, "Here he is. Go take it. Take it over. Do it."

So, I did. I could run the entire lab: take the patient in, write down what there was to be written, do the test, activate the machine, read the test, and send it out, which formerly required the physician to come and read the test. I could do all that.

In addition to that, there was here a so-called County Practice, which was run by a doctor with the name of Larry Russell. The specialty cases were done by other Reno physicians, of course, for nothing, and now comes a fully-trained neurosurgeon who could take care of all those individuals that come off the casinos with a hole in the head. Hallelujah! So, I had a practice which, although it was not very rewarding, was a practice just ready made.

When I got here I first lived in an apartment down by the river. Now it's called Jones Street. It's near the bridge where later the Reno High School was built. It's still in existence.

We already had our first daughter, Patricia. From there I moved into a house, also near the Reno High School, on Westfield Avenue. This

is when we had child number two, Kathleen, known widely as Thumper. The third child, Michael, was born in 1959. So then, by the time I started building the house I live in now on Willow Tree Lane, there were already the five of us. That was in 1964. Regarding my children today: firstborn, Patricia, became a doctor and doesn't doctor now; she married a doctor. She graduated from the School of Medicine, University of Nevada. Kathleen married a doctor and has two sons, my two grandchildren. Michael is a lawyer and married a lawyer and lives in Reno.

I came to Reno under the auspices of Dr. Bill Mack [Ernest Wood "Ernie" or "Bill" Mack]. I was acquainted briefly with Mack before I even came. He came to Chicago, in quest of an associate, and I was there. Since the possibility of starting to work was good, and the terms were adequate, I decided on coming to Reno and joining Dr. Mack. Now, we are right back to where we were before. Ernie Mack at that time was the chairman of the board of trustees of the Washoe Hospital, and as such, he knew the administrator pretty well, so he finagled it so that I could be employed by the Washoe Medical Center as the electroencephalographer, who was, as we said already, needed anyway. I was welcome to be there and welcome to do the indigent neurosurgery practice here. I was the right person at the right time.

A few years went by, and the Veterans Hospital needed a consultant. There was a physician with the name of Frommer at the Veterans Hospital, and Frommer I got to know. He was a decent person and very likeable. How he performed I didn't know, but at one time Frommer came to me and asked what I did to obtain a license to practice medicine in Nevada. I said, "It's very simple. I just took the state boards, physics, science and all."

Well, the next thing I heard was that the then director of the state hospital, Dr. Sidney J. Tillim, had gone to the legislature and had proposed a law that all graduates of the University of Vienna should automatically be given a license to practice medicine in Nevada. This bill was laughed at by the legislators and soundly defeated on the floor.

The next step then was that I found out that the Veterans Hospital had screened their medical personnel, and had found out that Frommer had come from Vienna in 1945 as a Jew persecuted by the Nazis. He came to New York City and said that he was a physician, so he was given a license to practice medicine in New York State without further ado. Then, he went to Nevada, and perhaps on his veracity, he practiced medicine in the Veterans Hospital for a while, until, on some kind of a routine search, or whatever they do periodically, they traced Frommer's medical degree from New York State and to Vienna, and connections were established that turned out that the University of Vienna didn't have a graduate with the name of Frommer. So whereupon, Frommer was terminated from the Veterans Administration, with or without Frommer's law.

Dr. Maclean came to me and said, "Now, you know why so many years ago I had to pull a legal trick on you. I couldn't tell you whether the board knew at that time about this Dr. Frommer or not." I didn't know, and I never asked. I think Dr. Frommer must have had some medical knowledge. Whether that was acquired at a university, or whether it was acquired somewhere else, I don't know, although, I have to say that Austria did not have any . . . well, call it paramedical education, like with chiropractic or osteopathy. If you wanted to study medicine you went to the university, and that was it.

Frommer hadn't been in the German army or anything like that. He had left before the war.

PRACTICING MEDICINE IN RENO

IN PRACTICE WITH ERNIE MACK

SO, I GOT my medical license in Nevada and started working with Bill Mack in his office at 505 South Arlington. There was no formal neurosurgical society or group or club or whatever you'd call it in Reno at that time, because there was Mack, and there was Charlie Fleming, and now, there was me. The entire contingent was small.

There were numerous national organizations, one that considered itself number one and limited itself mostly to academic matters, and some that were practice oriented, but there weren't all that many. Mack was a member of all of them. When I came, I don't think he had ever held, until then, a major office in what few national neurosurgical societies there were. He was a member, but I think he was much too occupied with his practice. When I came he had a little more freedom. I know he became a president, or something like that, of this society called the Harvey Cushing Society, which later on was renamed the American

Association of Neurological Surgeons. Then, there was another one, which was a smaller one where he was the president for a year.

I had met Dr. Mack when I was looking for a place to practice, or rather, I was finishing my residency at the University of Chicago. Chicago had two crown princes: I was one, and John Mullen was the second. John Mullen had this idea that he was going to stay, if possible. I had the idea that I was going to pull stakes, if possible. So, this agreement brought me to the attention of the head of the department, Joe Evans, who knew a lot of members of the various national societies. He then mentioned to some colleagues, as I have already said, that I wanted to get out of Chicago. So then, contacts evolved. I think my further contacts with these four or five offers of a place to practice were by mail, and also that my first contacts with Mack were by mail. Then, at one time I traveled to Reno, took a train to Reno, and spent a few days with Mack here, and then went back to Chicago. At that time I had already pretty much decided that I was going to come to Reno, because the medical licensing laws were the most favorable here.

Now, I did not have the boards of neurological surgery. Those I took two years later. The provisions of that board required that the man be in practice for more than a year, and that he knows what the practice itself looks like.

I did the EEG lab for a year then and worked in Bill Mack's office occasionally, but not officially. Most of the day, I worked with Larry Russell and did his indigent practice. I did neurosurgical procedures. I essentially took calls for Larry Russell, because he would probably have taken some of my calls, but if he would have done it for every specialty case, he would not have survived. So the physicians who were here then realized that, and they helped out as much as they could, and it was quite adequate.

I worked through the ER, seeing most patients and then seeing patients who came in and were unconscious. We didn't really know who they were or what the background was, so we had to come in and do something, but later on, next day, we find out that he's so-and-so, and Mack would take over, or another physician would take over. I worked very little with Charles Fleming. He stayed pretty much by himself. He had a lot of friends here and schoolmates, people who trained with him, orthopedists and general surgeons, whom he did not want to break with just because I came along. Also, he practiced over at St. Mary's. To practice at St. Mary's I had to wait until I was a fully licensed physician.

I worked with Mack for three years. Mack had told me that we'd try it for a year, and then we'd make a partnership. When the year was gone he decided not to, but I felt that that had constituted a promise, and I thought I had worked more than my share. In fact, I *knew* I had worked more than my share in this practice. Mack never had a partner, except there was one exception, and that was Bob

Morelli. He didn't have anything good to say about Bob Morelli either, but Bob Morelli had his boards already. He came a few years later. There were two or three interludes. One was a half-trained neurosurgeon. Then there was a general practitioner. Then there was Louise Tyrer, an obstetrician. Nominally, she covered his patients when he was away and called me in case she had any neurosurgery to do.

That, to me, was grotesque, that one of our very eminent neurosurgeons, and at that time chairman of the board of trustees of the Washoe Medical Center, had no qualms signing up an obstetrician to cover his accident practice over weekends. He did so, many times, and the good lady obstetrician came to other neurosurgeons, mostly me, wringing her hands. What's she going to do with this accident where the brains are showing? She works on the other end, generally.

When I left Mack's practice, I had a friend across the hall with the name of Frank Roberts, who said, "You just move right over." And I had more patients. In the meantime, another office in 505 South Arlington got vacated, so I took it. That was a busy building. Mort Falk was there, and Gil Lenz, and a whole bunch of our friends.

My relationship with Dr. Mack was a little chilly for awhile. He did most of his work, where he needed assistance, with one of the general surgeons. So did I, and that worked out all right. When it came to anything that had to do with orthopaedics, I worked with Jim Herz, rarely Sargent. Once in awhile I worked with Teipner. Once in awhile I worked with Fleming. Sometimes I scrubbed with Gilbert Lenz. That was just about it.

NEUROSURGERY IN THE EARLY 1960S

We covered the city and the area pretty well. Of course, standards of that time were

considerably different from now, because the neurosurgeon did all localizing procedures. They were so invasive, so involved, and so meaningful, that every so often you had to make a plan for major surgery before you even started trying to find out where in the head the difficulty was located. We had to often have an operating room waiting. It might be used or not. At that time, I remember, I had no complaints about the backup staff, nurses and so forth. Whether they were trained in neurosurgical procedures or not, I don't know. Some of them were trained on the spot here in Reno. I told them how to do it, and they did it. Of course, with so many procedures not as dependent on the outcome of instrumentation, as it is now, the entire job of the nurse was much simpler.

Neurosurgery required a second person to maintain a bloodless field. It is a much trickier activity than it is if you are, let's say, in the abdomen. The investigative modality we had at that time was x-ray. Ultrasound wasn't invented yet, or it came into use a few years after I had come, in the early 1960s. It came into use and was excessively primitive. Then, as contrast we had available air. We had air for many years. The other substances were iodine containing contrast agents that went into the arteries, and a good number of them were not all that well tolerated. Why they weren't, we don't know, but they had a higher complication rate.

I went to meetings where I could. Of course, when Mack was away, I couldn't go. Mostly he went, and when I was by myself, it often was at a time when either Fleming or Mack had the emergency duty. They were cooperative, but not very reliable. Nominally, I was covered, but not really. Louise Tyrer, the obstetrician, might be on call for Dr. Mack.

It took awhile for neurosurgical procedures to advance. The real big step forward was the

invention of the computerized tomography. In the 1970s they came out with computerized tomography, and they had it in Great Britain for a number of years before it reached other areas. The invention and the application of that to medicine was phenomenal. MRI wasn't invented yet. That had to wait another ten, fifteen years. In some ways, it is excessively superior to the CT scan. In some ways it just shows things in a different mode, like color photography compared to black and white.

Generally, in the course of a week I had about ten patients in the office—those which were follow-ups, new patients and consultations. I performed about four major surgeries a week, including back surgeries. The diagnostic procedures would come on top of that. Of the trauma, I would say major injuries—about four weekly. I wouldn't rank a small scalp injury amongst those four. They just were there. In the course of a month I did probably between two and four epidural and subdural hematomas.

There are two items I remember about bad injuries in the emergency room. Number one, in one month of October, I went to the hospital twenty-three nights. And another thing I remember happened quite often. I would get a call at night, and the girl said, "We had an automobile accident five miles south of town. Would you come in?"

I said, "Well, is there a head injury?"

"Well, that's what we want you to find out."

They didn't have a decent ER setup then with trained ER doctors. I always felt at that time, that I wasn't the patient's doctor. I was first the doctor's doctor, and then the patient's doctor.

Eventually, this changed with the setting up of a full staff with more ER crews. There were always two or three guys there who would know, at least, how to start a set of diagnostic procedures, and see if the patient

bled out of the head, or whether he had a broken leg and just didn't say anything, or couldn't talk, or had impairments otherwise. Before this improvement I just had to come in, because the patient could have had trouble in the head, as well.

Certainly, there must have been the same number of critical cases back then as there are now, but at that time, we did not have defensive medicine to that point. The physician was much freer in his decisions, and he had some, but very little, of the current terror behind him about malpractice suits.

RELATIONSHIP WITH THE LEGAL PROFESSION

Dealing with lawyers and lawsuits came gradually and in steps, and there were instances of legal inroads upon the practice of medicine. They would subside a little, and then came the next wave.

While I was in the EEG lab, I wasn't on the firing line. When I was with Mack, between me and the defensive medicine, I had Mack. He knew everybody in town, and he knew how to go about it. All I knew about the influence of the legal system on American medicine was a hint that the professor of neurosurgery in Cincinnati gave me shortly before I came in the 1950s. He said, "Don't forget, you come from Austria. There, the laws are there to be obeyed. Our laws are there to be argued in court." In Austria the controversy, the antagonism between lawyers and physicians, and the distrust that exists between lawyers and doctors until proven otherwise does not exist. In Austria you would say there is trust until proven otherwise. The situation is altogether reversed. I remembered that, but I had no concept that this could be a difference, or the implications of such a setup on medicine. And this was 1950. At

that time the whole malpractice terror was only beginning.

My first major encounter with the legal system was my own stupidity, because it was a man whom we would consider a "tight thumb." He water-skied in Lahontan reservoir, ran up onto the sand, catapulted a couple of times, and broke his neck. Then, a Reno lawyer, and a lawyer from San Jose, both of whom later on became of *Time* magazine fame, got involved. One was William "Bud" Bradley, and the other one, from San Jose, had an Italian name. I remember the article in *Time* magazine. The title was "The King of Tort."

These two lawyers took the case of this Lahontan fellow, and I was to be the plaintiff's expert witness, because I had operated on this water skier, and taken care of him. The man was quadriplegic, and there were people who told me how this happened. Well, the dummy water-skied out onto the sand, somersaulted a couple of times, and then finally just laid there.

So, before I went to the court, this lawyer from San Jose looked through my records while I was sitting there and said, "This paper you bring, and that paper you don't, and this you bring, and that you don't." I didn't quite see what was behind it, but then we went to the court. Before we went to the court, we went to the Nugget in Sparks and had lunch. I remember this lawyer from San Jose turning around looking at these people playing slot machines, and he made the remark, "They think they're gambling, but they aren't."

So, I said, "Gambling? What do you mean?"

"Well, look. They think a chance for a nickel is gambling. Make it \$50,000. Then it becomes gambling."

This just took me aback. I didn't mean a whole lot to him. I was totally green in that

respect. Then, I was very amazed to give my testimony in the court and to find out that the court ruled on the basis that the man had run into a submerged tree stump, and that's why he rolled over. I knew that other people had told me, "Ah, he'd been out on the land. That's why he's alive. Otherwise he would have drowned in the water."

Then I talked to some other people who said, "There aren't any submerged tree stumps in Lahontan."

However, photographs of tree stumps were submitted. But the photographer could not be questioned about where they were, because he was in Mexico.

But they claimed the water district, Lahontan irrigation district, had left tree stumps in Lahontan reservoir. I remember that the patient got this million dollars or so, and I had sent a bill, I think, for \$800, and got a letter from the patient's family, "We resent that bill, and you know why." Well, I didn't know at that point, yet, but this sounded to me like it was just a straight fraud. Here, I took the wrong turn. I wrote a letter to the Nevada supreme court and told them that I had heard that that guy was on the sand, and they had picked him up on the sand, and not in the water, and there aren't any tree stumps out there.

For me to write that letter was suicidal. First of all, the supreme court felt, as I found out later, with one abstention, that the San Jose lawyer was correct, that the injured man had skied into tree stumps, and that's all the water district's fault, and the water district has to pay the million. The lawyers involved, who knew the truth just as well as I did, were at that time against me, the wrong side, and did practically everything that could be done to break me, and there were several incidents in between.

Eventually, I built a house in the southwest of Reno and bought the land from a lawyer,

Bill Sanford (William C. Sanford), who had been here forever, and knew everybody here in town. He was a rock grinder by hobby, and I was interested in minerals as well. I went over every so often, and we ground rocks. At one time he said to me, "Are those lawyers bothering you still?"

I said, "Yes, they are, but not all that much." This time it was a case of a retired officer at Stead, who had an intercostal neuritis. He had taken some pills, and then he wanted to go for some intercostal nerve injections. Then he came to me, and I said I would try intercostal nerve injections. I did it under x-ray control at St. Mary's Hospital. The radiologist was there to make sure about the needle placement, and make serial x-ray photographs.

The patient said, "The pain is all gone from the chest," and he wants to go home.

I said, "No, you aren't going home. First, there is a chance that you have a whole in the pleura," whatever that pleura means to him. "And then you can't breathe so well. When that is so, I don't like you to be in Stead. I want you to stay here for overnight, and then we decide. If all goes well by tomorrow, then, go home."

So, he mouthed off, and he just bitched, but then he stayed, and sure enough, next morning, he had this breathing difficulty and had a small pneumothorax. So then, three days later he went home and started suing. After awhile, while the various lawyers collected their papers, my lawyer neighbor friend, Bill Sanford, asked me whether the lawyers were bothering me.

Well, the attorney from San Jose was not in it anymore, but instead of him, there was a lawyer up at Incline. I forget his name. When I went to my neighbor lawyer the second time to grind some rocks, I said, "No, I have not heard anything about it."

Bill grinned and said, "Yes, you won't hear anything about it, because I told them, 'If you

lift as much as a finger against my neighbor, Rosenauer, I go to the bar and talk.” That made a “no case” out of that case.

What apparently had gotten Bill Sanford up in arms was that I had operated on the assistant police chief in Reno for a facial tic. He came to me on a Saturday and said, “If you don’t do anything about it, tonight I commit suicide. It is so bad.” So, I went and operated on him, and things didn’t come out so that he looked quite right, but I did what one usually did at that time, before medicine was invented for this disease. That night, all of a sudden, he gets up, howls, has a fit, and becomes unconscious. From then on, it was downhill. In three days, he was dead.

I talked to the family at length about that, and they said, “Yes, he has done that before at one time, but has recovered.”

In the long run I came to the conclusion that the man had a cavernous sinus aneurysm. It’s unusual, but it occurs and produces tic pain. You can’t see it. A cavernous sinus aneurysm is a bad thing to have, and being pressed for time a little, I didn’t do an arteriogram, which nobody did for tic pain, anyway, because of the toxicity of the contrast substance.

Well, anyway, one of the Reno lawyers tried to get the family to sue. This is what a friend of the patient’s family, who was a minister, told me. He told me, “What’s the matter with this lawyer? He said if I prevail upon the patient’s family to start the lawsuit against Rosenauer, he would give me \$170,000. ‘And look what a fine church you could build for your congregation.’ I know.”

He told that to me after he had told my neighbor lawyer about that, and this got my neighbor lawyer, Bill Sanford, up in arms. At that time Bill was kind of sensitized, and when the next attempt at a lawsuit was started (with the pneumothorax after an intercostal nerve

injection), Sanford said, “One more activity against my neighbor, Rosenauer, and I go to the bar and talk.” So, these were the hassles of practice. I learned rapidly.

Later, there was a case of an Indian who broke his neck in a motorcycle accident, but I was only involved unofficially. This particular motorcycle driver had been drinking, and he came in and behaved in a rather unruly fashion. He tried to bite the nurses and spat and kicked all he could. No judge would tolerate him in his courtroom, but the hospital has to tolerate him. He had some x-rays made, which showed that there could be a fracture in the neck, but it didn’t show very well, because he was very broad shouldered.

I remember, that same night they made another set of x-ray films, or localizing films, and even then, they could not get as good a view as they wanted, partly due to the fact that the guy *did not hold still*. No photograph is good if the man can’t hold still for it. Well, then the next day, the patient was very quiet—and quadriplegic, too.

A lawsuit was started against the radiologist that he didn’t see this film right. I talked to the radiologist and listened to this story, and then I said, “Here, we know that sometimes this is hard to diagnose, particularly, if the person is broad shouldered and very massive, which makes the x-ray film look as if you photograph Miss America through ground glass.” You don’t see all that well what she looks like. Anyway, I thought, “Well, let’s try it.” So, I had an idea; I would lie down on the x-ray table and make a couple of x-ray films of my neck, with the neck held crooked this way and crooked that way.

Then, one of the orthopedists came in, who also had felt that there was a fracture on the films of the Indian motorcycle man. The radiologist said, “You ought to look at these films.”

And in fact, the orthopedist said, "That looks like it could well be a fracture."

Whereupon, the radiologist said, "Those are Adolf's films. He stands right there." So however, the legal outcome was, I think, a million or two against the radiologist . . . I didn't even get involved in this case. I know the outcome, but my entire part in this was kind of an intellectual exercise.

Another time I had to go to the court in the case of the world's fastest Linotype operator, who had some compensable injury to the left arm. He was left handed. The demand was based upon questionable atrophy of the dominant arm of the world's fastest Linotype operator, who was now fully disabled. He was disabled because his arm had shriveled because of this injury.

Now, a number of physicians had examined the man, and weren't so convinced that his arm had shriveled all that much. There were measurements available, and they were not within a very convincing range. So, when I had examined the patient I was called into the court. The reason why I went to the court was that a lawyer here in town with the name of Taber, who had been a judge, had said to me once before I entered the court, "You are not here to offer testimony. You are to help me to prevent a miscarriage of justice." That impressed me to a certain degree.

I borrowed a pipette cleaning cylinder from the pathology lab, a plastic device about six or eight inches across and about two feet high in which long glass pipettes are soaked in antiseptic before they get washed and sterilized. I went to the court with this pipette cleaning cylinder, which collected some interest from the court and the jury, and the people, too. I stated that we have a number of claims that this man has an atrophy of the left arm—he was left handed—or that he doesn't. I therefore proposed to repeat the experiment

of Archimedes: We fill the cylinder with water to a marked level, and dunk his right arm into it, mark the level to which the water rises, then dunk the left arm into it, and mark the level to which the water rises. If there is no difference, then he doesn't have atrophy. I understand that this also ended in "no case." It produced more negative sentiments on the part of the judiciary towards me than positive endearments.

FRIENDSHIP AND PASTIMES IN NEVADA

During my practice in Reno I developed a friendship with Ernesto Saska, the brother-in-law of the Austrian ski manufacturer, Franz Kneissl. Saska came into the hospital unconscious with a subarachnoid hemorrhage. He had been waterskiing in Emerald Bay up at Lake Tahoe. They fished him out of the water and then brought him down here. At that time Mack and I still practiced together, and we decided that he might have an aneurysm in the head. We arteriographed him, but we could never be convinced that what we saw was an aneurysm, nor where it arose, and which way it was located. So, we decided to do nothing.

Saska spent some time, a week or so, in the intensive care unit at Washoe Hospital, and in that intensive care unit was another man with an aneurysm in the head. After a certain time he was operated on—the man number two. For two or three weeks the patient was kept in bed. The operated man did pretty good, and then he got up, as he had done already, to go to the bathroom, and then he talked to the nurses on his way past the nurses desk, doubled over, and fell down dead. The chances were at that time, we thought, that the second man was dead due to unknown causes, but nonetheless, this promoted the idea not to operate on Saska, since we couldn't do much better or much worse.

Saska was still unconscious all this time, then gradually woke up. When he finally left the hospital, he said to me, "Tell me what skis you use."

"Skis?"

We had found out that we came from the same part of this world and were both skiers, and so I told him that a friend of mine was an officer in the United States Army and was a fairly large man. He had gone to the PX (Post Exchange) of the U.S. army and had procured two pairs of skis. Those two pairs were left over. They were about two meters, twenty centimeters (220 cm.), so seven and a half feet or something like that—enormously long. I had these skis for awhile, and we skied in the mountains around Innsbruck, and you carried your skis up, where you later on came down, so one tour a day. They were enormously heavy things. I couldn't fit them into a cable car anyway, because they were so long. They had to go in diagonal, and people had to go aside. However, we didn't have much money to ride a cable car at that time anyway, so mostly we walked. I thought the skis were too long, so I cut a foot off and planed it, and then I cut another foot off and planed it, and when I was planing, I found out that the ski had a core that was a soft wood. So I quit planing and painted it white.

I described all this to my friend Saska. He said, "That is the biggest joke I've heard. You come and visit me in Santa Monica," which I did, and I came home, then, with a pair of skis that Kneissl made that were very good, and I got new shoes and new bindings and whatnot, so I was up to snuff. Kneissl was top of the line at that time. They were still wood. The plastic ski was still in the experimental stage.

Saska and I stayed friends since then. The unusual occurrence was that a number of years later I was in Aspen skiing. There was a board where they write down snow depth

and windchill factor, and at the bottom it said, "Dr. Rosenauer, call Saska in Los Angeles." I called Saska in Los Angeles and found out that he had been skiing and suddenly fell unconscious. They took him to the hospital in Los Angeles, and he had another subarachnoid hemorrhage.

Now, at that time the diagnostic means were much improved, and the photographing of all this angiography at the University of California, Los Angeles was just "spare no expense." There were three x-ray rooms where the photographs were made. One was next to the table where the patient was lying to be photographed. One was on top, so the lateral shots and the vertical and the sagittal shots could be made parallax free. The head in the picture was almost the size of the head on the patient. They found an aneurysm in a certain part of the anterior communicating artery.

At that time there was a method being developed of introducing a magnet to the aneurysm under x-ray control. The magnet had a central hole. Through this hole was threaded a fine needle (Size 22) which was hooked onto a pump. Under enormous pressure it pumped a solution of very fine iron filings through that needle into the aneurysm. The crucial thing was that, number one, you have to fill the aneurysm to about half full. Number two, you have to fill the aneurysm, *not* the surroundings, so the needle tip has to be fairly flat, and has to be right in the aneurysm. After about seventy or eighty arteriograms on Saska, the procedure was accomplished. The magnet stayed in for a week and was then withdrawn—it was the size of a finger. The hole in the head was sewn up, and the aneurysm filled with clot quite readily, because the iron filings had arranged themselves inside the aneurysm along the lines of magnetic force, which are like a paintbrush with hair sticking in every

different direction. So a clot makes a very nice ball, incorporating the iron filings. This stays forever; that iron piece is in there, the size of a green pea, and the condition is corrected. It has numerous pitfalls, because this iron can get out of the aneurysm while it's being pumped, and you don't need a whole lot of extra pumping that the magnet cannot quite control. It may then flow into different arteries and cause all kinds of difficulties. But in Saska it worked, and he was cured of his aneurysm.

Oh, he was a character, Saska! Mrs. Saska, whom I also knew, was part Jewish. He and she had some relatives in a ski resort in South America, and in the late 1930s they decided that they were going to visit Chile for a long period of time with these cousins—I think they were his cousins—in Portillo, which was and still is a famous ski area in Chile. Saska was of military age, and I don't know whether he liked the idea of being drafted. On the other hand, Saska's brother-in-law, Franz Kneissl, had started a ski factory. His father was a cabinet maker at that time. In the mid to late 1930s ski tourism in Tyrol had gotten on its feet. So, Kneissl, his brother-in-law, was a tycoon. He had his eyes on selling his skis every place except the moon, perhaps. So, for Saska to go to Portillo, it was just a welcome idea to Kneissl. There was another intent. Now, whether Mrs. Saska would ever have been bothered during the war for being half Jewish, I doubt, because her mother wasn't bothered at all, and she would otherwise have been, let's say, one step up in the firing line. In fact, few Austrian Jews were persecuted. Mrs. Saska was not bothered, but it may have figured in their decision.

Saska also told me a story that blended in this discussion of finding out for his brother-in-law, Franz Kneissl, how much business the Kneissl Ski Company ever did in South America. Saska did not start as a

ski representative, at all. As a matter of fact, he was engaged in various businesses, but was always in some business representing products or in sales of some kind. And then, after the war they came to Los Angeles, and this is, eventually, where I got into contact with him.

* * * * *

Most of my hobbies are a matter of history, particularly, when it comes to hiking, and next to it, when it comes to sailing. I did sail last year with Bill Tappan, who has a small keelboat, which is very pleasant to sail. I do still own a sailboat of the *Thistle* class, which is smaller and is excessively crew demanding. It's a fast boat, and it doesn't require acrobatics, but comes very close to it. I still enjoy sailing, but I'm no longer performing as well.

I've had the *Thistle* since about the 1960s. I like the boat very much. It is the first sailboat that was designed to plane or surf. The idea is to make a sailboat plane like a motor boat that is driven so hard that the wetted surface becomes smaller and smaller. This proportionally increases the speed. A man with the name of Sandy Douglas had this conviction that he could make a sailboat do the same. The result is this boat called *Thistle*. [In 1945 Sandy Douglas invented the *Thistle*, a seventeen-foot, three-person, one-design racing dinghy. Its sail plan consisted of a main, jib, and spinnaker.] I have sailed it all over Lake Tahoe, and I have made a movie of a circumnavigation of Lake Tahoe, as hair brained as the idea was. This movie was submitted to the Thistle Boat Class Association and shown, and they sent it on to the builder of the *Thistle*, Sandy Douglas. I still have the correspondence that was based upon that movie. It was something like twenty years ago. At that time there were very few small

boats at Lake Tahoe, because Lake Tahoe was considered not for sailing, or too dangerous to sail. This boat, the *Thistle*, in particular, was not considered a good choice, but it turned out to be all right. One time when the wind blew so hard, I couldn't turn around until we had crossed the lake. I sailed in San Francisco Bay a few times, and as a matter of fact, I sailed the *Thistle* in the Bay, too. I remember a couple of harbor seals, coming up and swimming along with the boat, giving me the idea they knew there was some breakfast coming.

One time, we were sailing up in North Bay, and this nuclear sub came along, about a hundred yards away. It was partly submerged, but I knew that submarine wasn't shooting at me, so it didn't cause any panic on my part, but Eva, who was a member of the crew, suffered an anxiety spell.

In 1970 I took up flying, and I've been flying ever since. I did that because what interested me is not only to master the possibility of moving about in air, myself, but also navigation. That was a big attraction to me. It's not as physically demanding as, for instance, sailing is.

It all came back to the fact that the son of one of our anaesthetists, David Williams, went to Europe, and wanted to know what to see and where to go, so I told him to go, if he can, to see my family—my father, who was still alive, and my mother. We mentioned earlier this olden-times custom among good academic citizens, such as the medical doctor, the doctor of jura, the lawyer, the attorney, the doctor of theology, the village priest, and the random doctor of philosophy: If a student comes along, he gets his socks washed, and he gets fed, and he gets shown around, and then three days later he's on his way again. So, since my parents knew approximately when this guy was coming, he stayed with them a little longer, and then when he came back

he decided he had to do something for me. He asked whether or not I was interested in flying around Lake Tahoe with him. He was a pilot, so I said, "That's great!" and immediately jumped to it.

Then he said, "Isn't that something if a human has wings?"

I said, "Yes. Yes. That sounds rather intriguing."

The answer was, "Why don't you learn it yourself?" I thought I couldn't manage this time wise, with the neurosurgical practice. So he said, "Well, my brother just came back from Korea. He's a certified flight instructor, and he hasn't got anything to do, other than polishing slot machines." He said, "I'll talk to him."

Out of this talk emanated a student/teacher relationship, in as much as every morning about six, the two of us were out at the flight school flying, here in Reno. I never gave it up since then.

Eventually, I bought an airplane. Actually, the flight school and I bought it together. I guaranteed the monthly payments to the bank. It worked out so that about three months of the year I had to pay in; three months of the year I broke about even; and the other six months of the year I had a slight return from the school, which leased the plane out to students.

At that time the Fish and Game Commission here in Reno was running some kind of a biological study of animal migration. They had targeted animals with small transmitters and then let them go. Then, they surveyed the area where they had released these pelicans or fish, and charted what they found—where they had migrated to. These people always rented my airplane. It suited them well, and they wanted to put an extra antenna on, which I said, "Put it on." In this fashion the project endured. It lasted until

my insurance payment for the following year would outweigh the income for that year from the Forest Service project. So then, I took the airplane out of the school, paid it off, and since then it's mine.

For awhile I had a smaller plane, but then, the factory built a slightly bigger and better model, particularly for mountainous areas, because it could climb better. The Fish and Game Department used this aircraft also for awhile. This is a 181 Piper Cherokee.

Over the years I've had several flight instructors, and I have flown different airplanes, but mainly the paperwork I completed was with young Dave Williams. I still fly. The navigation is fascinating. Also, I have my son Michael flying.

Years ago we got a condominium up at Tahoe. It's called Tahoe Tavern. We still have that, and so we go up on Sundays in summer for a greater length of time. Years ago we went up still more in winter for skiing. It has worked out reasonably good, the way I see it, simply because we are so close to it. The people who own a condominium in Lake Tahoe and live in Los Angeles, I think they don't have it as convenient when it snows. They don't ever get into it.

Mostly, I have stopped downhill skiing. I've fallen down enough and fallen off things enough. I was in avalanches twice, but just got away with it. So, I think I'm here at the end of that chapter of my life.

I've had trouble with my back in the last couple of years. I think it's just so beat up, just worn out. The contrast studies I saw of my own back are about the worst I've seen in my practice, short of the all-out fracture and dislocation, and that's why I keep the films of my own back under lock and key.

I have had discussions with my colleagues about back surgery, but I've always succeeded in stopping short. The reason I don't think that back

of mine is operable with any reasonable chance of success is because in order to get at the structures that make a lot of the back pain, you have to sacrifice so much bone, which has been put there by my body under duress in order to afford stability. So then, this unstable or unruly back of mine may well become more painful than what hurts me now. It just doesn't hurt enough. Once in awhile, every two, three weeks, I think, it bites me so much that I take a pain pill. But if a patient came into my office and complained about his back, I would ask him, "How many pain pills do you have to take to put up with it?" If he said one every two weeks, I would tell him, "What are you doing in my office?"

* * * * *

I still travel back to the old country once a year to see my family and cousins. This is my domain, Austria. I eat what they eat, and the whole day is running as it used to be. For awhile I think I deserve that. Through the years, every so often I have thought of returning to Austria permanently. I have come to terms with that by spending a significant amount of time in Austria, while still being based in Reno. Through it all, then, they can bury me there.

PERSPECTIVES ON MEDICINE TODAY

INSURANCE FRAUD

Over the years I have seen in my practice a lot of people who claim to be sick in order to collect money. I think it's significant in all types of medicine that involve accidents. A third party is responsible. Now, as we extend the third party responsibility and call it HMO, it has increased.

It is very difficult to deal with suspected malingerers, because in all painful conditions the patient can learn how to complain. To disprove it is so difficult, that most of the time you might as well not try, particularly with back pain. The benefit of the doubt goes to the complainant, and as long as we have that, we can do nothing about it. The last malpractice insurance premium I paid was \$45,000 a year. This payment—and it's very typical—includes the demand for coverage for the time of ten years after you're through practicing. So it is in many medical disciplines. In obstetrics it's eighteen years. The liability would be tacked on him, until the patient is of legal age, or eighteen. The professional insurance, liability

insurance, throughout Europe is about one twelfth of what we have here in the U.S.

LEGAL INROADS INTO MEDICINE

I have been sued more than once. The last time was a woman who had an aneurysm in the head. Dr. Louis Levy and I operated on her and obliterated the aneurysm, except for a short stump. This is not unusual to leave it at that, because if the staple that obliterates this aneurysmal structure goes a little bit too close to the maximum arterial diameter—I'm talking about fractions of a millimeter—then the artery may clot, and the patient has a stroke. Levy made a postoperative arteriogram which showed this stump, so we asked ourselves if that could be enlarging again and thus make another aneurysm. But this was not the question. The question was, can the doctor guarantee and disprove that this will not happen (which you can do no more than you can guarantee to your wife that your child will be Miss America, before it is even conceived)? It is ridiculous.

So, Levy proposed that the family go to one of the big universities in California and have this reviewed. They refused. They said, "No, we want to stay with you, Dr. Levy." So then, she was operated on a second time. Another clip. We put another clip in closer. She had the stroke—exactly what Levy said could happen, happened. The artery from where the aneurysm emanated became plugged.

So then, two lawyers and a neurosurgeon came from Denver, who, I think, knew Levy from previous years in Denver. We tried to find out something about that neurosurgeon, but could not. The lawyers were Mr. Teichman and Mr. Mandelbaum. They sued St. Mary's Hospital and various nurses and finally tacked the entire negligence on Levy and me, as the assistant. I couldn't contribute much one way or the other, but this came to a settlement for which Mr. Teichman drove from Denver to Reno to collect the insurance check. My son, who is now a lawyer, told me later that this whole lawsuit was in some way a fraud, or something irregular and illegal—certainly not kosher. If fraud were proven, Mr. Teichman and Mr. Mandelbaum would have to give the money back. I didn't believe that this could happen in these United States of America.

Now, the neurosurgeon involved was Allen Mischler, who had entered into these negotiations and had a hand in it while they made the depositions. The Reno lawyers asked the Denver lawyers, "Now, what is the position of Dr. Mischler, here? Is he an expert witness?"

"No."

"Is he any witness?"

"No."

"Is he going to be a witness in the trial?"

"We don't know."

So, it was concluded that he shouldn't really sit in. I don't know what the good

lawyers, then, came up with, that they said was proper and lawful, but I heard from my son that something was rather improper, some procedure. I have no follow up on that case.

I had dealings with this Dr. Mischler, who was the physician in question in these bogus deposition hearings without really belonging there. I know that Dr. Mischler trained at the Lahey Clinic, but his professor never saw him. He said, "Well, he doesn't come. He doesn't really do any work. He's nominally registered in the residency program, but as a resident I expect him to work." So, he would not sign his training certificates. Then, I talked to the secretary of the American Board of Neurological Surgery, on occasion of a ski trip to Steamboat Springs, Colorado. The secretary of the board told me he knows this affair quite well. Mischler's father is a federal judge looming in the background.

So, the board asked their own legal help what to do about it. "The man hasn't done any work as a resident. How can we sign his board certificate?"

The legal help to the American Board of Neurological Surgery advised the secretary of that board to, by all means, sign the certificate for the untrained man, because a federal judge could bring the entire system down in a heap.

Dr. Mischler came to Reno, then, from Denver, and we could not obtain any history of his work in Denver. See, the people I asked about it gave me no answers and said that they could not communicate about that, so I think that something dishonest had been going on in Denver before, with Dr. Mischler. As long as he was here, he never took a severe accident case. He always tried to hand this onto somebody else. His behavior was not quite flagrant enough to warrant canceling his hospital privileges. A commission was appointed consisting of three members. One member was requested by Dr. Mischler, which

person, incidentally, was then his teacher at the Lahey Clinic. One commissioner was appointed by the hospital, Dr. Ted Kurze, who was then the secretary of the American Board of Neurological Surgery when Mischler came up for his certification. The third member of the commission—I don't know who requested him—was also an academician. He was from the University of California in San Francisco. All the records that Dr. Mischler had accumulated at the Washoe Medical Center in Reno had to be reviewed, and what was unusual was presented to this commission. The records were so far out of line that they were anywhere between preposterous and fraudulent.

He claimed to have done procedures that in everybody else's but Mischler's hands would take about six hours; he claimed to have done the procedure in around twenty minutes and had billed for it. So, on those grounds his hospital privileges here at the Washoe Medical Center were revoked, and on the next session of the Nevada State Board of Medical Examiners his Nevada license was revoked. This is all a matter of public record.

I have no idea where he went from there, but I know I saw his name in a journal that advocates doctors for plaintiffs' attorneys. He was in there.

In the last seven or eight years my specialty, neurosurgery, has functioned quite satisfactorily and without any major upheavals.

CHANGES IN NEUROSURGICAL TECHNIQUES

The changes in neurosurgery in the forty years or so since I came to Reno have been colossal, and the way that Washoe Medical Center has kept up is quite good. It is true that some of the changes are technical. The brain is the same. What has advanced so much are

the localizing procedures. One of the very early commandments of the father of modern neurosurgery, Dr. Victor Horsley, was that you always must localize the disease process. With the machinery that has been designed in the last fifty years, these techniques of localizing have improved *enormously*. Where it was so many years ago painful, demanding, and interfering with the patient's general condition, it is now without any great bother.

Forty years ago, to localize the process was, number one, to fill the head with air, which promotes a contrast with the brain substance. That by itself caused a massive headache. In instances of a manifest displacing process, by itself it could make matters worse, so that quite often when we had to do air studies, we had an operating room ready.

There was a Portuguese who invented other methods of visualizing the vascular system. One was Thorotrast—with the radiation-producing metal called thorium. Thorium could cast a shadow on an x-ray film. It was not a good shadow. It was not very clear, and the substance was abandoned because it had a tendency to settle in the liver and start a cancer years later. At the time, we did not know it. The substance that this Portuguese came up with contained iodine. You needed an x-ray machine to make a picture. The iodine-containing substances blot out gamma rays, so with an x-ray machine you could see arteries as they were in the brain. The difficulty with the early use of angiography was again that the contrast substance was very toxic. One really had to think twice whether it was worth the risk, trying to employ this procedure. Then the researchers got to work and came up with substances that are just as shadow casting and not very toxic, to the point where a friend of mine, Saska, had an aneurysm in the head operated on, and he went through seventy-two arteriograms for

the procedure alone. If that substance had been toxic in the least, the man could not have stood it.

Then came the later tomographs, the so-called CT scan or computerized tomography. That was first used without contrast enhancement, and then with. Then came the magnetic resonance imaging (MRI), and then enhancement substances that could make the picture still clearer. Now, of course, we can use positron rays, positron emission tomography (PET). The positron machine is not available at Washoe Medical Center. They may have one or two in California, but they're excessively expensive, excessively repair-happy. If you have such a localizing machine, you have to have two, because one is constantly broken.

Positron emission tomography is a very effective imaging instrument. It's based upon the principal of when a substance is injected into a structure in the brain that we want to see and breaks down substance when it's located, for instance, inside a brain tumor. Particles then leave and radiate up into the universe, all this, or most of the time, either course of 180 degrees opposition. So, you have to have counters on both sides, which cancel out all those parts that come at the same time on both sides, and if a particle comes that has no counterpart that's a significant discharge. They have, I don't know how many counters, sixty or something like that. It is quite advanced and you need a crew of technicians to do that. [Editor's note: PET is a non-invasive technology that can routinely and quantitatively measure metabolic, biochemical, and functional activity in living tissue by electronic detection of short-lived positron emitting radiopharmaceuticals. PET measures chemical changes that occur before visible signs of disease are present on CT and MRI images.]

The MRI machines that use the magnets can be made bigger and bigger and bigger at colossal expense. The images obtained can be analyzed, then, by individually selecting different stages of magnetic resonance and bringing them up in a color visible to the human eye. This gives a greater resolution. It makes the entire surgical procedure a fraction more accurate, maybe, like an automobile that runs sixty-six miles instead of sixty-five miles. With respect to the research, of course, this is significant.

It has not helped very much with, say, the treatment of congenital lesions. Congenital lesions in the nervous system are in the brain, and some come down in the spine. If the spine does not close, the various European states have long since said a deformity of greater than such-and-such magnitude is not to be treated. It is just covered with bandage, and the child is left to die on its own. Of course, we don't have such a principal in this country, and neither can it be kept up in all European countries. The ethical implications can be overwhelming.

As far as changes in surgical techniques, there are two things standing out. One is the use of the microscope and the coaxial light—shadow-free light—which allows smaller instruments with the exposures being smaller. This aspect is a major advantage.

Stereotaxis is another one. You can, today, screw the patient's skull into a rigid frame, and onto this frame is then fastened a system of moveable parts that gives you a possibility of determining directions by declination and right ascension, just like the astronomer does. The only thing that it does not give you is the depth, but you get around that with different projections. The accuracy of localization in a sphere about the size of a human brain is, maybe, plus or minus two millimeters. The trouble is that our brains don't go by two

millimeters. Well, the apparatus would be capable of exceeding nature's accuracy.

Stereotaxis is useful in localizing biopsies and in injections into deep lesions, where with the old procedure, quite often you can get just right next to it, and then give a false negative. [Editor's note: Stereotaxis is a computer technology for remotely directing catheter-based devices along computer trajectories deep within the human body, making surgery less invasive and more efficient.]

Radiation has made very little progress in treating a deep-seated tumor. Perhaps cobalt at times produces a more effective radiation than gamma rays, but chemo-therapy constituted a major step forward. A good number of, particularly, the fast-growing tumors, such as medulloblastoma, are chemo-sensitive.

As a surgical specialist, I don't get into the specific treatment; that is the oncologist's treatment. As a matter of fact, if there is something more complicated, we generally bring it up in the team report, once a week, where there may be an oncologist or two and radiotherapists and chemotherapists. Then it is discussed which way would be the optimum way of treating it.

HMOs

As far as the HMO system of providing medicine, it has an advantage in that it could make some aspects of medicine cheaper. It does not interfere with or influence any medical research. It does not influence the complaining of individuals so prone to insurance fraud. It moves the burden of medicine to a higher scale. For example, all of our homeless people at one time were treated at the Washoe Medical Center in Reno for nothing. That means for nothing from the part of the doctor, for nothing from the part of the hospital, and for nothing from

the part of any drugs needed and used. They now are regulated, and the financial burden is shifted onto the HMO, but that's all for the patient. Now this is ameliorated a little by the physician employing a horde of secretaries to do nothing but cope with the insurance bureaucracies.

I don't think this will last forever. It will more and more become a patient's job, then, to find out whether he has any insurance, to find out what his insurance does, and to hold the proof for it. But they never do it. And the aspect of over amplifying complaints is thought to be reduced a little by the insurance companies reserving the right to authorize certain treatments and not others. As long as the insurance company is pretty much immune from our judiciary, this will work, but I don't think it is permanent. An insurance company is generally not sued unless the complaint promises six zeroes.

A doctor is easy to sue—there is only one guy we have to nail. In the insurance company we have twenty-six secretaries. Some are married. Some have moved to Cuba, and the other ones are God-knows-where, and indisposed, so the burden of coming to any legal base is much greater, and for that matter, the lawyer pronounces no case.

I have been signed up for at least a dozen HMOs and PPOs. The insurance companies try to collect participating physicians all through the country. But I don't sign up with any, anymore. There is just constantly in my junk mail questionnaires from Louisiana and from southern California, Texas, and Las Vegas, naturally, and the Midwest. Of course, they all want another new set of the same papers that you have sent out so often already. Bureaucracy. I think the answer to that will eventually be that individual physicians group together and then sign up with *no* insurance company; if the patient wants to pay directly,

he can collect from the insurance company, which would make medicine cheaper and would reduce the expenses of the physician's office.

For years I was a consultant at the VA, and it was generally accepted that around spring the chief physician, whom I knew quite well at that time, would call up and say, "Would you do us a favor? We are out of budget until June, to the end of the fiscal year. Would you come anyway?"

So, I would say, "All right. I come anyway." Not that the income from the Veterans Hospital was so great. At that time they paid by the visit. Then, if I went there and spent four or five hours doing a brain tumor, I was paid for a single visit—fifty dollars. Well, from that you can't run a doctor's office, if you have to pay \$45,000 worth of insurance. The VA didn't pay my insurance there. I had to bring my own insurance.

I had a good working relationship at the VA. I knew all the doctors there. In my years in the German army medical corps I learned, saw, and did take care of the sick and wounded. It makes no difference which king's coat the wounded man wears, whether he's a so or a so or a so or a so, he gets treated. So, when I worked with the VA here I thought, well, this is some of that same principle that I might still recall as an excuse to go there and do something about their patients, but I wasn't all that impressed with the clientele of patients at the VA. If I saw one guy, who had a history of having been wounded in combat, per year, it was a big year. They're all wounded by the ten packs of cigarettes a week—or the bottle.

It sounded so incongruous to me then, when our government introduced and fostered the HMO system, because we had an example of the HMO system: the United States Veterans Administration. If I would have asked a hundred people off the street,

who were all veterans, where do you go for your medical care, I would probably have found ten who would say, "Well, of course, I go to the Veterans." The other ninety I would have expected to say, "Where?" These ninety veterans go to their regular physicians.

I don't go to the VA anymore. Later on they abandoned the system of the consultant coming in for a single case and made a weekly clinic out of it. Those colleagues who go and run these weekly clinics, they mostly speak in very loose words. Not complimentary at all.

MEDICAL TRAINING TODAY

If I were a young lad just a year or two out of surgery training, and I had my choice of neurosurgical residencies, I would try not to go to the biggest university, because you can't expect to see much more than a lot of white coats from the back. The typical program of that type is generally so overwhelmingly big, that what's left for the individual to learn is not always all that much. You come with a big name, but quite often the person who has more contact with the problem is in the smaller teaching institution. I think that would be a valid consideration.

I'm quite sure that Massachusetts General Hospital is excessively large, and so is the Mayo Clinic. So smaller teaching institutions would be in smaller hospitals in smaller towns. It should be a population center with teaching, so there is more chance to learn. On the other hand, I would have to be current on that particular subject much more than I am, because even in a big city—Los Angeles, New York City, or Chicago—there may be some teaching institutions that fit category one, and on the other end of town could be one that fits category two. So, you would just about have to do some research on that, which I'm totally out of now.

In general, it's the chief of the service who is the key to making a good program. When I went with Joe Evans from Cincinnati to Chicago, he was eminent in the country. Since he had two chief residents, and I was one, and since at that time neurology was practically non-existent, I consulted a lot on purely neurological cases. I think Northwestern was more crowded at that time.

The neurologist and the neurosurgeon have in common a number of localizing procedures, and in some of them the neurologist starts and hands the results on to the neurosurgeon. If there's a shadow, the neurosurgeon takes over now. But at one time the diagnostic procedures constituted so much clinical risk that neurology was practically limited to office procedures, which neurosurgeons only use in diagnostic studies. Also, neurology has assumed, or re-assumed, electroencephalography and myography.

At one time I did almost all of the electroencephalography in Reno, and also, most of the electromyography. Back then, the machines were not very accurate and left a lot to the individual examiner to judge. Conduction velocity measurements were unknown. There was no instrumentation to measure such short amounts of time, which we have now. So that part has been refined considerably and has gone back into the hands of the neurologist.

Radiologists do quite a bit more now in terms of the procedures that I used to do. At one time, when air studies were done, air filling of the ventricles, the neurosurgeon did it all, including reading the films. When arteriography was done, the neurosurgeon read all of his films.

I remember at one time when I was at the University of Chicago one of the x-ray technicians had made a long set of boards, about eighteen inches wide and three feet

long. There were three thin drawers inside; each one would admit an x-ray film in its frame and a light shield, and strings were hanging out one side of this big frame. It was put under the patient's head, and then I—being the surgeon—punctured the carotid artery. The technician stood next to me, and as I injected, I would say, "Now!"

"Click." He pulls the first cassette out. "Click." He pulls the second cassette out. "Click." I have three pictures of a cerebral angiogram. What an improvement!

I remember at one time in the middle of the night the professor of radiology came crawling out of his office, and he had a cassette in his hand. He said to me, "Come over." He put me into the farthest corner of this x-ray room, where we made the arteriograms. He said, "All right, hold that plate, and put your hand on it." While the arteriogram was going on in the other part of the room he got the plate, disappeared, and after a few minutes he was back with the plate where my hand was exposed and basically photographed. So, you could see the scatter of x-ray activity as colossal, even though we had all kinds of controls and directional devices to just photograph the head of the patient. The gamma rays were going in all different directions, and there was enough scatter to make a picture of my hand from way across the room. It was very impressive. The professor said nothing. I said nothing. I think, when the time came, you did say something. If I think of the occasion of one training in the generation earlier, there were a number of radiologists at the University of Innsbruck, who were minus a number of fingers. It was common.

PLANS FOR THE FUTURE

Now in my practice I do paperwork—review charts, or go for authorities' and

lawyers' second opinions. I see problems where the family doctor doesn't quite know whether he should send the patient to the neurosurgeon or to a neurologist. Then, I do the workup, and the net result is my referral. Since I've done, at one time, so much of the neurology here in Reno, anyway, it doesn't bother me all that much if this is technically not operable. But at the time I send a patient to one of my surgery friends, he comes with a complete workup, and this shortens the entire time of treatment procedure. It's much more efficient.

I probably will keep my office open till midsummer of 2000. Then, there will be very little of medicine left for me to do, and I *will not* miss it. I have a lot to do around the house. I'm interested in some woodwork. I'm interested in a lot of reading. I watch my animals that come and go, mostly come. The newest is an Easter bunny. He is a very friendly guy. He's a rabbit, a small rabbit. Very friendly guy. He looks at me and eats his grass. But now, I see circles of them milling around. Last year, three, four, five of them.

So, I've also tried to photograph them with a camera that has a telescope in it, a zoom lens. This requires a certain precaution: number one, the farther you pull the zoom out, the smaller the pictures. The light gathering power of the camera diminishes significantly, which means since all these apparatuses have to have exposure meters, an exposure meter would boost up the exposure time. The rabbit won't always hold still, unfortunately. Neither can I. So I found that out. I looked at some pictures; I said, "God dammit. This rabbit wasn't hopping; it was sitting there, and still the picture is not clear, because I could not hold my hand." I need either a tripod, or at least, to hold it on something steady. So, the zoom photography is not directly the same as it is to photograph with a bigger lens. The little things you learn here and learn there.

My jackass, that I got from Saskia about twenty years ago, is still there and isn't moving all that fast anymore, except for carrots. And now that we have a llama as a friend, the two of them horse around in the pasture.

I got the llama from Johnny (Dr. John) Erickson, who is an obstetrician here in town and lives a little south of me. He had a young male llama. The breeders keep mostly the females and have to give the males away as studs. I went out to his pasture and just sat there in the pasture. At first, the llamas didn't notice me; there were five or six of them, and the little one that was going to be mine still nursed. They didn't pay any attention to me. Then, I came with a sack full of oats and made little piles all around the pasture. Those piles, then, caused attention. Eventually, this attention centered around the sack where those oats were, and they started eating out of my hand. The most alert and most eager was always the little one, although it didn't eat, yet. It still nursed. Then, it was time to wean it, so I put it in a different pasture, and I did the same thing. I got this animal to the point where, yes, on the other side of the fence there was a herd, but the young llama came to me first, and then wanted to look at what the herd was doing. At that point, I became the herd. Erickson and I brought the llama to my house, and for a long time my wife Eva didn't know that it was there. (I had another llama once, and when I was away, Eva gave it away, period.)

Well, I named the llama after one of the grandsons, and I called up that boy, and his mother. The boy is now six years old, and his name is Fuller. So, I told them that there is a llama here, black, called Fuller, and I'm training it so that he can lead it around like a dog, to eat here and eat there. Then, the news filtered back to Reno from New Hampshire where Fuller, the boy, lives. Eva found out that

there was a llama at our place called Fuller, and it was Fuller's llama. Fuller knew about it, so now she couldn't do anything about that llama anymore. It's a very friendly animal. I click my tongue a couple of times, and he comes racing up.

Let's say I make six piles of hay for the llama and the jackass. Then, one wants to eat here, and pulls the other away, and he goes to the next pile, or vice versa. Then they jump around and run at each other, but there is no animosity, none at all. So, it's a workable pasture now.

Once a year, at the minimum, I have to recuperate with eating all those things, that the gods of the USA forbid, so I travel to Austria. I start with lard or smoked bacon—just to pick something that is totally politically incorrect. Then there are several varieties of dumplings and a couple of bottles of wine of one sort or another, and cheese powerful enough to stink two buzzards off the gut-wagon. So, all these things that are *verboten* here, I splurge on there. I usually go to Linz where my relatives are. If I go somewhere from Linz, it is like going from here to Fernley. What I'm looking for is just close. Once in awhile I go to Innsbruck. Now, that's as far away as Elko.

The last time I was there, there was a fifty years renewal ceremony of the doctor diploma. Austria still carries that law that, in essence, every twenty-five years you have to get your diploma renewed or reviewed. It is done as a formality, because in Austria, and other states in that vicinity, the university tells you again that you're fit to be a doctor. That's it. There is no separate board of directors or separate bureaucracy that examines the candidate and decides whether he can practice medicine or not. That's the university's job. The people who train you, the people who examine you, will do that. So, there is this hangover of every

quarter of a century you go there and get your diploma renewed. I live in the United States, and I'm a peculiar case, because of a fancy golden ring that I have. The certificate is to be signed by the president of the republic as the successor to the emperor. This was mentioned at the ceremony. Things were a little off, so my diploma is not signed by the President of Austria, but by the President of the Parliament of Tyrol. What they did not say is that at that time in 1945 the State Secretary of Education in Vienna was, according to Allied rules, a Communist. His design was to not recognize anyone from a university outside of Vienna. He made the greatest political effort to close the other two universities in Austria at Graz and Innsbruck. He would do this by means of the trick or shenanigan or whatever you call such activity, of declaring various professors bad Nazis. So then, the Allied Council of Generals in Vienna would have to agree to arrest and remove these various professors, which would then crop the curriculum of teaching below what is prescribed in Austria for a university, and the university would close.

Vienna was in the Russian zone. The state department of education, which was headed by a Communist named Fisher, wanted all students, all academic education under his thumb. There was propaganda which would necessitate closing the other universities. One was in Innsbruck, which was the French zone, and one was in Graz, which was the British zone. If you, at that time, came with any kind of idea that so-and-so was a bad Nazi, then the first thing was that he was arrested. Then, afterwards came an investigation, and by that time, Fisher hoped that the university had to close down, because of lack of lectures. So, at the two universities, Innsbruck and Graz, the senate had to play all kinds of tricks to obviate this political scheme. One

of them was me, with my traditional, fancy, academic achievement, which at one time was recognized by the Emperor of the Austrian monarchy. There was no way that the state department of education would want to hear anything that would run counter to their design of closing the universities. So the provincial government in Innsbruck decided, "All right. You guys in Vienna, you don't interfere with our academic procedures," or interfere as little as possible. So they had to prevent the removal of professors who never had anything to do with politics other than the academic career. The president of the parliament in Innsbruck prevented the closure of the university. That was in Tyrol and not from Vienna. It was more than fifty years ago, 1947.

* * * * *

I belong to the St. Hubertus Organization. This is an order, a hunting order that was created 300 years ago in what's now the Czech Republic. In essence, the founder of the order, Baron von Sporck, an aristocrat, liked to hunt. He was very instrumental in putting hunting laws through in the Austrian monarchy, which eventually preserved the game. There was a lot of politics against the scheme, because it gave hunting privileges to the land-owning gentry, not exclusively, but almost exclusively. But we are not talking about owning land like the King's ranch in Texas. We're talking about very small plots, like three times a golf course. If you owned that much land, you owned the game. So this fancy order existed through the years. Sometimes it nearly died, and then it revived again, but it always retained sort of a distinguished knightly status.

Now, how does the doctor get knighted? Well, if the eminent grand master of this order falls asleep driving up to Truckee, and then

ends up in the Washoe Medical Center, who is the doctor on call? Me. At first, not very much happened. He recovered, and there was some correspondence. A month later, he did the same thing again. This time, he scraped himself up a little better, and was out of his head for a few days, and then he did notice more and better that the doctor who talked to him spoke his dialect. If the doctor treats the grand master, and the patient does not die, the doctor is being knighted, whether he wants to or not. This represents some kind of an old tradition on the other side of the water.

His name was Carl Christian Weber. He's dead now. He was at one time the honorary Austrian consul of the West Coast, San Francisco. First, he was a hotel man, and then, spent a good deal of his life in the diplomatic corps, as all the state of Austria could afford. That's an honorary consul. His house was his own office.

We of the order have meetings once or twice a year. For instance, recently, there was a meeting in San Francisco. By the time I got into this order it was found out that the official languages of the order are German, Spanish, and English. Now, my Spanish isn't very good, although I do best at reading. German and English, I don't have any trouble. So they found that suddenly they had a knight who can help with the correspondence, so I was hung on to. I had a ready-made job.

This club has quite a number of members. Southern California alone has about a hundred. Northern California has not quite half that much. Canada has a province of the Order. Mexico has a province of the Order. The various states in Europe have a province. Scandinavia and Great Britain have one. It's a big, big international order.

It was revived in 1950 in Vienna, with considerable assistance and support of the U.S. and the British High Commissioners

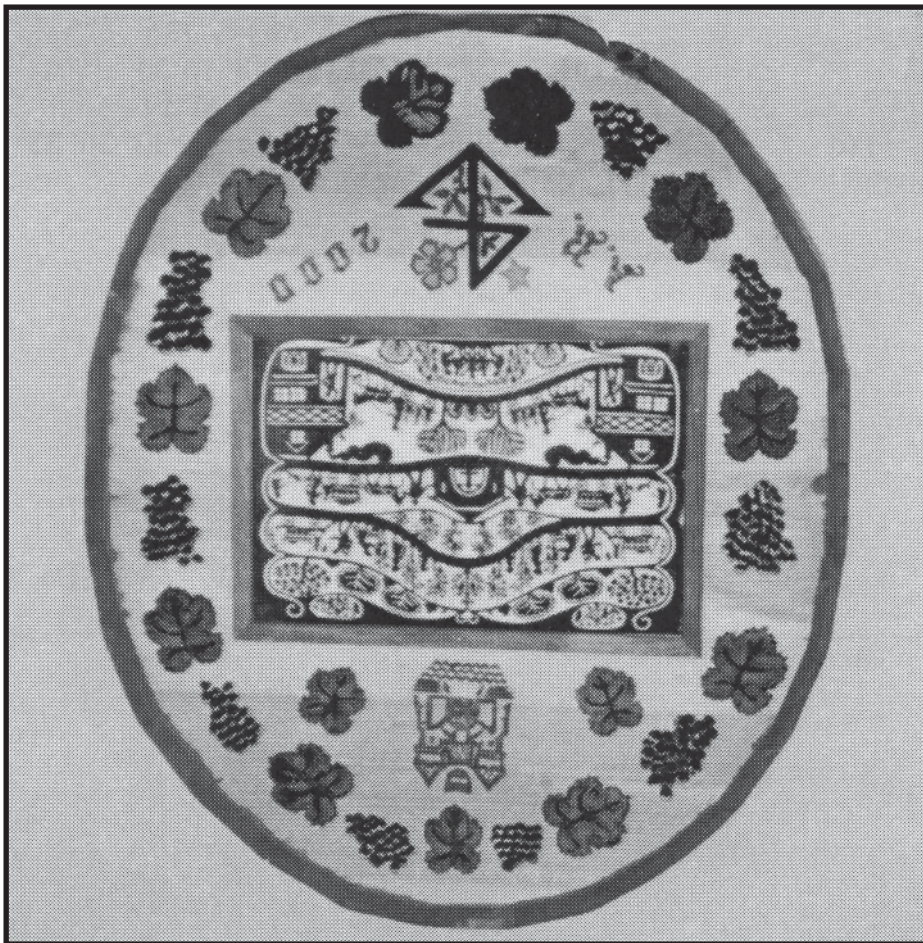
of the Occupation Forces in Austria. Both of them loved hunting. In their choice of contacts with the local population they were somewhat restricted, because a good number of the Austrians were ostracized as “bad Nazis” and another part as “old Communists.” Furthermore, many men were still held as POWs in various parts of the world. What was acceptable then were mostly members of the by-gone aristocracy. Furthermore, the laws of the Occupation called for the death penalty for possession of firearms of any kind. The restitution of a hunting order had to circumvent all these legal obstacles, and it was done by inviting the British and the U.S. high commissioners to become members of the order. When the idea was brought up that there was at one historical time a hunting order of that sort, the various high commissioners jumped to it and remained the most active.

This hunting order is active in this country now. I still hunt with them. It is in some ways different, according to the rules of the hunting license people. In this country you really buy yourself a license and buy yourself equipment and off you go. In Austria it's not so. You own the game, or if you want to hunt on federal land, well, then you get a hunting license for federal land, and you go with the forester. Most of the hunting is done on private land, and then you go as the guest of the owner of the hunt, which makes it much more personal.

It's named after St. Hubertus, and St. Hubertus lived in the eighth century in what's now southern Belgium. He was a playboy and also liked to hunt. It is recorded that he saw, followed, and chased a stag, who turned around facing him, and he had a flaming cross between his antlers. It shook up the holy St. Hubertus—who wasn't very saintly yet—real bad. He went to his bishop and told him what he had seen, and the bishop

said very sternly, “It took you a long time to come, huh? That is God's last hint to you. You quit your lifestyle. You give all your worldly possessions to the poor,” something like that, to charity. “And you now lead a God-pleasing life,” which he did so ardently that numerous miracles occurred over his grave, which is the prerogative for attaining sainthood. St. Hubertus, since then, is the patron saint of all hunters. The International Order of St. Hubertus and numerous other St. Hubertus organizations, clubs, and talent corners and what not in Europe—they bear this name.

APPENDIX: BARRELHEAD DESIGNED BY ADOLF ROSENAUER



“Originally, the word ‘surgeon’ came from the greek and meant ‘a man who works with his hands’. As a historical consequence thereof, I like woodworking—such as making this barrelhead. Of the three designs on it, the top one is the Coat of Arms of the City of Liz in Austria, where I come from. The center illustration tells the story of viticulture. My mother’s family, the Fioriolis, were vinters in Tyrol. On the lower part is chiseled in the keystone of the entrance to a farm in the Danube Valley. It is said that a Rosenauer built it, and his family lived there. They were river folks, in the shipping trade as far east as Budapest. The star in the design may refer to navigation. The anchor in it is the type used some hundreds of years ago. The rose is native to the land and refers to our family name. The farm is now hydroelectrically submerged, and the stone with its design rests peacefully, deep in the waters of the Danube.”

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